Doctoral Scientists and Engineers: 1997 Profile Tables

In continuing the series of reporting on the demographic and employment profile of doctorate-level scientists and engineers in the United States, this set of profile tables was produced to complement the data tables in the *Characteristics of Doctoral Scientists and Engineers: 1997* report from the Survey of Doctorate Recipients (SDR). SDR is a longitudinal panel survey of individuals who have received their doctorates mainly in the sciences or engineering fields.

Unlike the general employment and demographic characteristics presented in the *Characteristics* report series, these profile tables focus on the survey data which provides more detailed profiles of the employed doctoral scientists and engineers. These include reasons for making certain choices in employment situations, work-related activities, and special module data collected only in 1997, such as job security concerns, alternative work arrangements, job satisfaction, recent doctoral recipients' experiences in finding first career path job and evaluation of doctoral training, etc.

The 1997 SDR is the thirteenth in a series of surveys initiated in 1973 in response to the needs of the federal government for demographic and employment information on scientists and engineers trained at the doctoral level. This 1997 survey was sponsored by the National Science Foundation and the National Institutes of Health. The purpose of the SDR, since its inception, has been to estimate the number of people holding research doctorates from U.S. institutions in science and engineering who reside in the United States and to characterize their demographic and employment patterns.

The sampling frame for the SDR is the Doctorate Records File (DRF), a census of all research doctorates earned in the United States since 1920. The SDR sample for 1997 was 54,103. The data in these tables focuses on those doctorates who earned their degrees in a science or engineering field from a U.S. institution between January 1942 and June 1996 and were age 75 or younger and residing in the United States in April 1997. The estimated size of this population is 582,100.

For more information on the survey methodology, see Appendix A in the *Characteristics of Doctoral Scientists and Engineers: 1997* report. For further information, please contact:

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Table 1. Distribution of doctoral scientists and engineers, by field of doctorate: 1997

April 2002

Field of doctorate	Number	Percent
Total	582,100	100
Sciences	484,600	83
Computer and mathematical sciences	35,100	6
Computer/information sciences	8,100	1
Mathematical sciences	27,000	5
Biological and agricultural sciences	142,100	24
Agricultural/food sciences	18,500	3
Biological sciences	118,600	20
Environmental life sciences	5,000	1
Health sciences	18,900	3
Physical and related sciences	121,000	21
Chemistry except biochemistry	63,700	11
Earth/atmosperic/ocean sciences	17,200	3
Physics and astronomy	40,000	7
Social sciences	80,700	14
Economics	23,100	4
Political and related sciences	17,700	3
Sociology	15,000	3
Other social sciences	24,800	4
Psychology	86,900	15
Engineering	97,500	17
Aerospace/aeronautical engineering	4,200	1
Chemical engineering	14,000	2
Civil engineering	8,600	1
Electrical/computer engineering	26,000	4
Materials/metallurgical engineering	9,400	2
Mechanical engineering	11,900	2
Other engineering	23,300	4

NOTES: Numbers are rounded to nearest hundred. Percents are rounded to the whole number. Details may not add to totals because of rounding.

Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients.

Table 2. Demographic characteristics of doctoral scientists and engineers, by field of doctorate: 1997

April 2002

Demographic characteristic	Field of doctorate								
	All fields	Computer and information sciences	Mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total (number)	582,100	8,100	27,000	142,100	18,900	121,000	80,700	86,900	97,500
					Percent				
Year of doctorate									
Pre-1960	5	S	4	5	S	9	4	4	4
1960-69	14	S	20	14	5	18	12	10	16
1970-79	27	S	32	26	21	27	32	27	24
1980-84	14	S	11	15	16	11	15	17	10
1985-89	15	23	11	15	19	13	14	17	15
1990-92	10	21	9	10	14	9	8	10	12
1993-94	7	21	6	7	11	6	7	7	9
1995-96	9	20	7	8	13	7	8	8	11
Sex									
Male	77	83	87	74	48	88	72	56	94
Female	23	17	13	26	52	12	28	44	6
Race/ethnicity[1]									
White	83	67	81	85	84	83	86	91	69
Black	2	S	S	2	S	1	4	3	1
Asian/Pacific Islander	13	29	15	11	9	13	7	2	27
Hispanic	2	S	S	2	S	2	3	3	2
American Indian/Alaskan Native	--	S	S	S	S	S	S	S	S
Age									
Under 35	11	26	12	12	7	13	7	8	15
35-39	13	28	10	14	10	14	10	11	17
40-44	15	21	12	18	19	13	13	17	14
45-49	16	16	14	16	22	12	19	21	12
50-54	16	S	20	14	18	15	19	18	14
55-59	12	S	15	10	11	13	14	9	12
60-64	7	S	8	6	6	8	7	6	8
65-75	10	S	8	10	7	12	12	9	8
Citizenship status									
U.S. citizen	91	72	89	93	94	91	93	98	83
Non-U.S. citizen	9	28	11	7	6	9	7	2	17
Permanent U.S. resident	82	88	82	81	79	86	79	86	81
Temporary U.S. resident	18	12	18	19	21	14	21	14	19

[1] Race/ethnicity shown for all doctorate recipients, including temporary residents.

KEY: -- = Percent < 0.5 and estimated weighted cases >= 1,000.

S = Suppressed due to too few cases (fewer than 1,000 weighted cases).

NOTES: Numbers are rounded to nearest hundred. Percents are rounded to the whole number. Details may not add to totals because of rounding.

Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 3. Demographic characteristics of doctoral scientists and engineers, by years since doctorate: 1997

April 2002

Demographic characteristic	Total	Years since doctorate: 5 years or less	6-15 years	16-25 years	More than 25 years
Total (number)	582,100	114,500	172,600	152,800	142,100
			Percent		
Sex					
Male	77	66	69	81	93
Female	23	34	31	19	8
Race/ethnicity[1]					
White	83	69	81	86	92
Black	2	3	3	2	1
Asian/Pacific Islander	13	25	13	9	6
Hispanic	2	3	3	2	1
American Indian/Alaskan Native	--	S	S	S	S
Citizenship status					
U.S. citizen	91	74	91	98	99
Non-U.S. citizen	9	26	9	2	1

[1] Race/ethnicity shown for all doctorate recipients, including temporary residents.

KEY: -- = Percent < 0.5 and estimated weighted cases >= 1,000.

S = Suppressed due to too few cases (fewer than 1,000 weighted cases).

NOTES: Numbers are rounded to nearest hundred. Percents are rounded to the whole number. Details may not add to totals because of rounding.

Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 4. Laborforce status of doctoral scientists and engineers, by field of doctorate: 1997

April 2002

Employment status	Field of doctorate							
	All fields	Computer and mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total (number)	582,100	35,100	142,100	18,900	121,000	80,700	86,900	97,500
	Percent							
Employed full-time[1]	82	87	82	84	81	81	77	87
Employed part-time[1]	7	5	6	7	6	8	14	4
Unemployed, seeking employment	1	S	1	S	1	S	S	S
Retired	8	6	8	6	10	9	6	7
Not employed, not seeking	2	S	3	S	2	2	3	1

[1] Includes those who held postdoctoral appointments.

KEY: S = Suppressed due to too few cases (fewer than 1,000 weighted cases).

NOTES: Numbers are rounded to nearest hundred. Percents are rounded to the whole number. Details may not add to totals because of rounding.
Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 5. Reasons for not working as reported by doctoral scientists and engineers, by age: 1997

April 2002

Reasons for not working	All ages	Age 64 and under	Age 65 and above
Total not employed (number)	63,600	28,800	34,900
		Percent	
Retired	73	44	96
On layoff	4	7	S
Student	3	6	S
Family responsibilities	8	16	S
Ill or disabled	5	8	S
Suitable job not available	7	14	S
No need or desire to work	9	12	6
Other reason	6	10	S

KEY: S = Suppressed due to too few cases (fewer than 1,000 weighted cases).

NOTES: Numbers are rounded to nearest hundred. Percents are rounded to the whole number. Details may not add to totals because of rounding and because multiple answers are allowed. Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 6. Reasons for working part-time as reported by doctoral scientists and engineers, by age: 1997

April 2002

Reason for working part-time	All ages	Age 64 and under	Age 65 and above
Total employed part-time (number)	40,500	32,100	8,500
		Percent	
Retired or semi-retired	29	17	77
Student	4	4	S
Family responsibilities	24	29	S
Ill/disabled	3	4	S
Suitable full-time job not available	21	25	S
No need or desire for full-time work	34	34	33
Other reason	12	13	S

KEY: S = Suppressed due to too few cases (fewer than 1,000 weighted cases).

NOTES: Numbers are rounded to nearest hundred. Percents are rounded to the whole number. Details may not add to totals because of rounding, and because multiple answers were allowed. Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 7. Employment status of doctoral scientists and engineers, by field of doctorate and sex: 1997

April 2002

Labor force status and sex	Field of doctorate							
	All fields	Computer and mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total in labor force (number)	524,800	32,600	126,500	17,300	107,000	72,000	79,800	89,600
	Percent							
Employed full-time[1]	91	94	92	92	92	90	84	95
Employed part-time[1]	8	6	7	8	6	8	15	4
Unemployed, seeking employment	1	S	1	S	2	S	S	S
Male (number)	403,800	27,900	93,600	8,200	94,100	51,100	44,400	84,300
	Percent							
Employed full-time[1]	93	95	93	94	93	92	90	95
Employed part-time[1]	6	4	5	S	6	7	9	4
Unemployed, seeking employment	1	S	1	S	2	S	S	S
Female (number)	121,000	4,600	32,900	9,100	12,800	20,800	35,400	5,300
	Percent							
Employed full-time[1]	84	85	88	89	88	86	76	90
Employed part-time[1]	14	S	10	S	10	12	23	S
Unemployed, seeking employment	1	S	S	S	S	S	S	S

[1] Includes those who held postdoctoral appointments.

KEY: S = Suppressed due to too few cases (fewer than 1,000 weighted cases).

NOTES: Numbers are rounded to nearest hundred. Percents are rounded to the whole number. Details may not add to totals because of rounding.

Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 8. Employment sector of doctoral scientists and engineers, by field of doctorate: 1997

April 2002

Employment sector	Field of doctorate								
	All fields	Computer and information sciences	Mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total employed (number)	518,400	8,000	24,400	124,600	17,200	105,300	71,100	79,300	88,600
	Percent								
Education institution	48	42	66	58	56	38	67	40	31
Private industry	37	52	27	28	30	48	18	32	58
Government	10	S	5	11	11	11	11	11	8
Self-employed or other	5	S	S	3	S	3	5	17	3

KEY: S = Suppressed due to too few cases (fewer than 1,000 weighted cases).

NOTES: Numbers are rounded to nearest hundred. Percents are rounded to the whole number. Details may not add to totals because of rounding.

Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 9. Employer characteristics of doctoral scientists and engineers, by field of doctorate: 1997

April 2002

Employer characteristic	Field of doctorate							
	All fields	Computer and mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total employed (number)	518,400	32,400	124,600	17,200	105,300	71,100	79,300	88,600
	Percent							
Employer size								
Under 10 employees	10	4	6	7	7	7	27	7
10-24 employees	2	5	2	S	2	2	3	3
25-99 employees	4	4	4	S	5	4	5	4
100-499 employees	10	12	9	9	10	10	11	8
500-999 employees	4	4	4	S	5	6	4	3
1,000-4,999 employees	11	12	11	11	11	10	9	13
5,000 or more employees	59	62	63	62	61	61	41	61
Employer a new business within past 5 years?								
Yes	6	6	5	S	7	3	8	9
No	94	94	95	96	93	97	92	91

KEY: S = Suppressed due to too few cases (fewer than 1,000 weighted cases).

NOTES: Numbers are rounded to nearest hundred. Percents are rounded to the whole number. Details may not add to totals because of rounding.

Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 10. Relationship between work on principal job and doctoral degree as reported by doctoral scientists and engineers, by field of doctorate: 1997

April 2002

Relationship between principal job and doctoral degree	Field of doctorate								
	All fields	Computer and information sciences	Mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total employed (number)	518,400	8,000	24,400	124,600	17,200	105,300	71,100	79,300	88,600
					Percent				
Closely related	69	73	69	72	79	57	74	82	64
Somewhat related	23	25	23	22	17	32	20	14	29
Not related	7	S	9	7	S	11	7	4	8

KEY: S = Suppressed due to too few cases (fewer than 1,000 weighted cases).

NOTES: Numbers are rounded to nearest hundred. Percents are rounded to the whole number. Details may not add to totals because of rounding.

Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 11. Most important reason for doctoral scientists and engineers to be working outside field of doctoral degree: 1997

April 2002

Most important reason	All fields
Total reporting working outside doctoral degree field (number)	37,900
	Percent
Pay/promotion opportunities	20
Working conditions	5
Job location	4
Change in career or professional interest	30
Family-related reasons	5
Job in doctoral field not available	24
Other reason	11

NOTES: Numbers are rounded to nearest hundred. Percents are rounded to the whole number. Details may not add to totals because of rounding. Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 12. Primary work activity of doctoral scientists and engineers, by years since doctorate: 1997

April 2002

Primary work activity	Years since doctorate				
	Total	5 years or less	6-15 years	16-25 years	More than 25 years
Total employed (number)	518,400	89,100	171,400	143,300	114,600
	Percent				
Applied research	19	24	21	18	15
Basic research	13	19	14	10	11
Development	6	6	7	5	5
Design	2	3	2	3	2
Teaching	22	20	20	21	27
Management, sales, and administration[1]	16	7	14	22	20
Computer applications	5	7	5	4	4
Professional services	12	11	13	13	9
Other activity[2]	5	4	4	5	6

[1] Category includes: accounting, finance, contracts; employee relations including recruiting, personnel, development, and training; managing, supervising; sales, purchasing, marketing, customer service, public relations; and quality or productivity management.

[2] Category includes: production operations, maintenance, and other activity.

NOTES: Numbers are rounded to nearest hundred. Percents are rounded to the whole number. Details may not add to totals because of rounding.

Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 13. Similarity between work and expectations of doctoral scientists and engineers, by field of doctorate: 1997

April 2002

Level of similarity	Field of doctorate								
	All fields	Computer and information sciences	Mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total employed (number)	518,400	8,000	24,400	124,600	17,200	105,300	71,100	79,300	88,600
					Percent				
Very similar to expectation	47	49	49	49	52	37	53	57	41
Somewhat similar to expectation	33	40	28	32	33	35	27	29	39
Not very similar to expectation	21	S	23	19	15	28	20	15	20

KEY: S = Suppressed due to too few cases (fewer than 1,000 weighted cases).

NOTES: Data are based on a question that asked how similar the work during a typical week on a primary job is to what they expected to be doing at the time they completed a doctoral degree. Numbers are rounded to nearest hundred. Percents are rounded to the whole number. Details may not add to totals because of rounding. Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 14. Types of alternative or temporary work arrangements by doctoral scientists and engineers, by sex: 1997

April 2002

Type of work arrangement	Total	Sex	
		Male	Female
Total employed (number)	518,400	399,100	119,300
		Percent	
Self-employed working as an independent contractor	7	6	10
Principal employer contracted out employee services to other organization(s)	4	4	4
Working through a temporary help or employment agency	S	S	S
Working on an "as needed," "seasonal," or short-term basis	3	3	4
Job sharing	S	S	S
Working from home for 50 percent or more of work time	5	5	6
Something else	2	2	S

KEY: S = Suppressed due to too few cases (fewer than 1,000 weighted cases).

NOTES: Numbers are rounded to nearest hundred. Percents are rounded to the whole number. Multiple answers were allowed.

Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 15. Reasons for working in alternative or temporary work arrangements for doctoral scientists and engineers, by sex: 1997

April 2002

Reasons	Total	Sex	
		Male	Female
Total working in alternative/temporary arrangement (number)	79,900	56,900	23,000
		Percent	
Schedule flexibility	17	15	19
Only type of work found	9	9	8
To gain experience that might lead to a permanent job	3	3	S
Better pay	12	13	10
Family-related reason (e.g., children, spouse's job moved)	7	3	16
In school or some type of training program	S	S	S
Enjoy being own boss	24	26	22
Employer changed status to temporary	S	S	S
Other reason	27	29	21

KEY: S = Suppressed due to too few cases (fewer than 1,000 weighted cases).

NOTES: Numbers are rounded to nearest hundred. Percents are rounded to the whole number. Details may not add to total because of rounding and because multiple answers were allowed. Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 16. Employment benefits available to doctoral scientists and engineers, by field of doctorate: 1997

April 2002

Type of benefit	All fields	Computer and information sciences	Mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
	Field of doctorate								
Total employed (number)	518,400	8,000	24,400	124,600	17,200	105,300	71,100	79,300	88,600
Total receiving benefits (number)	493,100	7,900	24,000	121,500	16,600	102,300	68,600	65,800	86,500
	Percent								
Health insurance that was at least partially paid by employer	93	97	95	94	94	93	93	85	94
A pension plan or a retirement plan to which employer contributed	86	88	92	83	89	87	90	80	88
A profit-sharing plan	22	30	16	17	19	29	10	15	37
Paid vacation, sick or personal days	85	89	76	88	89	88	80	78	89

NOTES: Numbers are rounded to nearest hundred. Percents are rounded to the whole number. Details may not add to total because of rounding and because multiple answers were allowed. Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 17. Federal Government support status of science and engineering doctorates, by field of doctorate: 1997

April 2002

Support status	Field of doctorate								
	All fields	Computer and information sciences	Mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total employed (number)	518,400	8,000	24,400	124,600	17,200	105,300	71,100	79,300	88,600
	Percent								
Received government support	26	28	21	35	24	29	16	16	30
No government support	74	72	79	65	76	71	84	84	70

NOTES: Data are based on a question that asked whether any of the work on primary job during the week of April 15 was supported by contracts or grants from the U.S. goverment. Numbers are rounded to nearest hundred. Percents are rounded to the whole number. Details may not add to total because of rounding. Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 18. Federal Government support status of doctoral scientists and engineers, by employment sector: 1997

April 2002

Support status	Total	Employment sector							
		Universities and 4-year colleges	Other educational institutions	Private for-profit	Self-employed	Private not-for-profit	Federal Government	State and local government	Other
Total employed (number).....	518,400	233,200	13,600	165,000	25,100	26,300	38,100	15,400	1,600
					Percent				
Received government support.....	26	39	9	16	7	41	S	32	S
No government support.....	74	61	91	84	93	59	100	68	89

KEY: S = Suppressed due to too few cases (fewer than 1,000 weighted cases).

NOTES: Data are based on a question that asked whether any of the work on primary job during the week of April 15 was supported by contracts or grants from the U.S. goverment. Numbers are rounded to nearest hundred. Percents are rounded to the whole number. Details may not add to total because of rounding. Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 19. Federal agencies and departments supporting work of doctoral scientists and engineers: 1997

April 2002

Federal agency or department	All fields
Total receiving Federal Government support (number)	136,700
	Percent
Agency for International Development (AID)	1
Agriculture Department	7
Commerce Department	3
Defense Department (DOD)	21
Department of Education (includes NCES, OERI, FIPSE, FIRST)	3
Energy Department (DOE)	12
Environmental Protection Agency (EPA)	4
Health and Human Services Department (excluding NIH)	7
Interior Department	3
National Aeronautics and Space Administration (NASA)	9
National Institutes of Health (NIH)	32
National Science Foundation (NSF)	19
Transportation Department (DOT)	2
Other	5

NOTES: Data are based on questions that asked whether any of the work on primary job during the week of April 15 was supported by contracts or grants from the U.S. government and the agencies or departments that supported the work. Percents are rounded to the whole number. Details may not add to total because multiple answers were allowed. Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 20. Academically employed doctoral scientists and engineers, by field of doctorate and faculty rank: 1997

April 2002

Academic rank	Field of doctorate								
	All fields	Computer and information sciences	Mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total employed in academe (number).....	240,700	3,400	16,000	70,700	9,500	38,700	46,900	28,400	27,200
					Percent				
Professor.....	36	S	46	31	23	37	40	35	41
Associate professor.....	22	42	26	19	30	18	26	21	23
Assistant professor.....	19	39	18	19	30	15	20	17	18
Instructor, lecturer, adjunct faculty.....	7	S	S	7	S	7	7	8	5
Not applicable at institution.....	2	S	S	1	S	3	S	S	S
Not applicable for position.....	15	S	S	23	S	20	6	15	11

KEY: S = Suppressed due to too few cases (fewer than 1,000 weighted cases).

NOTES: Academe includes 2-year and 4-year colleges, universities, medical schools, and university-affiliated research institutes.

Those on postdoctoral appointments are also included in this table, mostly under "not applicable for position". Numbers are rounded to nearest hundred. Percents are rounded to the whole number. Details may not add tototals because of rounding. Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 21. Academically employed doctoral scientists and engineers, by years since doctorate, sex, and faculty rank: 1997

April 2002

Sex and academic rank	Total	Years since doctorate: 5 years or less	6-15 years	16-25 years	More than 25 years
Total employed in academe (number)	240,700	45,300	75,900	61,700	57,800
			Percent		
Professor	36	S	10	54	75
Associate professor	22	4	37	26	12
Assistant professor	19	42	30	4	S
Instructor, lecturer, adjunct faculty	7	10	7	5	4
Not applicable at institution	2	S	2	2	2
Not applicable for position	15	40	13	8	5
Male (number)	179,700	27,900	50,500	48,200	53,100
			Percent		
Professor	42	S	12	58	77
Associate professor	22	S	40	25	11
Assistant professor	16	43	28	4	S
Instructor, lecturer, adjunct faculty	5	9	6	4	4
Not applicable at institution	2	S	S	2	S
Not applicable for position	13	41	13	7	4
Female (number)	61,100	17,400	25,500	13,500	4,700
			Percent		
Professor	17	S	7	40	54
Associate professor	22	S	31	30	S
Assistant professor	27	41	34	S	S
Instructor, lecturer, adjunct faculty	11	13	10	9	S
Not applicable at institution	2	S	S	S	S
Not applicable for position	21	39	15	12	S

KEY: S = Suppressed due to too few cases (fewer than 1,000 weighted cases).

NOTES: Academe includes 2-year and 4-year colleges, universities, medical schools, and university-affiliated research institutes.

Those on postdoctoral appointments are also included in this table, mostly under "not applicable for position". Numbers are rounded to nearest hundred. Percents are rounded to the whole number. Details may not add tototals because of rounding. Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 22. Academically employed doctoral scientists and engineers, by field of doctorate and tenure status: 1997

April 2002

Tenure status	Field of doctorate								
	All fields	Computer and information sciences	Mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total employed in academe (number)...	240,700	3,400	16,000	70,700	9,500	38,700	46,900	28,400	27,200
					Percent				
Tenured...	52	43	69	43	42	50	61	49	59
On tenure track...	16	38	14	16	27	13	16	13	17
Not on tenure track...	11	S	S	14	13	12	9	13	9
No tenure system at institution...	5	S	S	5	S	6	5	7	S
No tenure for position...	16	S	7	22	13	20	9	17	12

KEY: S = Suppressed due to too few cases (fewer than 1,000 weighted cases).

NOTES: Academe includes 2-year and 4-year colleges, universities, medical schools, and university-affiliated research institutes.

Those on postdoctoral appointments are also included in this table, mostly under "not applicable for position". Numbers are rounded to nearest hundred. Percents are rounded to the whole number. Details may not add tototals because of rounding. Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 23. Academically employed doctoral scientists and engineers, by years since doctorate, sex, and tenure status: 1997

April 2002

Sex and tenure of status	Total	Years since doctorate: 5 years or less	6-15 years	16-25 years	More than 25 years
Total employed in academe (number)	240,700	45,300	75,900	61,700	57,800
			Percent		
Tenured	52	3	42	73	82
On tenure track	16	34	26	4	S
Not on tenure track	11	23	13	7	5
No tenure system at institution	5	5	5	6	3
No tenure for position	16	35	15	10	9
Male (number)	179,700	27,900	50,500	48,200	53,100
			Percent		
Tenured	58	S	46	76	83
On tenure track	14	36	25	4	S
Not on tenure track	10	23	11	6	4
No tenure system at institution	5	5	5	6	3
No tenure for position	14	34	13	9	8
Female (number)	61,100	17,400	25,500	13,500	4,700
			Percent		
Tenured	34	S	33	62	67
On tenure track	22	31	28	S	S
Not on tenure track	16	22	15	12	S
No tenure system at institution	6	S	7	S	S
No tenure for position	22	37	17	14	S

KEY: S = Suppressed due to too few cases (fewer than 1,000 weighted cases).

NOTES: Academe includes 2-year and 4-year colleges, universities, medical schools, and university-affiliated research institutes.

Those on postdoctoral appointments are also included in this table, mostly under "not applicable for position". Numbers are rounded to nearest hundred. Percents are rounded to the whole number. Details may not add totals because of rounding. Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 24. Characteristics of doctoral scientists and engineers on postdoc, by selected field of doctorate: 1997

April 2002

Demographic characteristic	Field of doctorate		
	All fields	Biological and agricultural sciences	Other fields
Total postdocs (number)	25,600	13,900	11,800
		Percent	
Years since doctorate			
5 years or less	85	86	83
6-10 years	12	12	12
11-15 years	S	S	S
More than 15 years	S	S	S
Sex			
Male	65	59	71
Female	35	41	29
Race/ethnicity[1]			
White	66	64	69
Black	S	S	S
Asian/Pacific Islander	28	31	24
American Indian/Alaskan Native	S	S	S
Hispanic	S	S	S
Age			
34 or younger	58	59	58
35-44	32	36	28
45 or older	9	S	14
Citizenship status			
U.S. citizen	70	69	71
Non-U.S. citizen	30	31	29
Employment sector			
Educational institution	76	78	73
Business/industry	12	11	13
Other	12	11	13
Employment benefits			
Health benefits available	90	92	88
Pension benefits available	49	44	54

[1] Race/ethnicity shown for all doctorate recipients, including temporary residents.

KEY: S = Suppressed due to too few cases (fewer than 1,000 weighted cases).

NOTES: Postdoc is a temporary position awarded in academe, industry or government primarily for gaining additional education and training in research. Numbers are rounded to nearest hundred. Percents are rounded to the whole number. Details may not add to totals because of rounding. Details of employment benefits does not add to total because multiple answers were allowed. Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 25. Primary reason for holding postdoc for doctoral scientists and engineers, by selected field of doctorate: 1997

April 2002

Reason	Field of doctorate		
	All fields	Biological and agricultural sciences	Other fields
Total postdocs (number)	25,600	13,900	11,800
		Percent	
Primary reason for holding postdoc			
Additional training in field	20	20	21
Training out of field	13	15	11
Work with specific person or place	18	18	18
No other employment available	17	14	21
Postdoc generally expected for career in this field	24	28	19
Other reason	7	S	11

KEY: S = Suppressed due to too few cases (fewer than 1,000 weighted cases).

NOTES: Postdoc is a temporary position awarded in academe, industry or government primarily for gaining additional education and training in research. Numbers are rounded to nearest hundred. Percents are rounded to the whole number.

Details may not add to totals because of rounding. Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 26. Second job status of doctoral scientists and engineers, by employment sector of principal job: 1997

October 2002

Second job status and occupation	Employment sector of principal job								
	All sectors	Universities and 4-year colleges	Other educational institutions	Private for-profit	Self-employed	Private not-for-profit	Federal Government	State and local government	Other employer
Total employed (number)	518,400	233,200	13,600	165,000	25,100	26,300	38,100	15,400	1,600
	Percent								
Held second job	15	17	35	9	16	24	10	25	S
No second job	85	83	65	91	84	76	90	75	93
Total holding second job (number)	72,200	36,500	4,700	13,700	3,800	6,100	3,600	3,600	S
Occupation of second job									
	Percent								
Science and engineering occupations	64	64	62	61	64	66	70	73	S
Computer and information scientists	4	4	S	8	S	S	S	S	S
Mathematical scientists	3	4	S	S	S	S	S	S	S
Life and related scientists	8	11	S	S	S	S	S	S	S
Physical and related scientists	6	6	S	8	S	S	S	S	S
Social and related scientists	13	14	S	8	S	S	S	S	S
Psychologists	20	15	31	14	S	42	S	46	S
Engineers	10	11	S	16	S	S	S	S	S
Non-science and engineering occupations	36	36	38	39	36	34	30	S	S
Top/mid-level managers, administrators, etc.	6	6	S	S	S	S	S	S	S
Other non-S&E occupations	30	30	34	32	30	28	28	S	S

KEY: S = Suppressed due to too few cases (fewer than 1,000 weighted cases).

NOTES: Numbers are rounded to nearest hundred. Percents are rounded to the whole number. Details may not add to totals because of rounding.

Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 27. Relationship between work on second job and doctoral degree by doctoral scientists and engineers, by field of doctorate: 1997

April 2002

Relationship	Field of doctorate							
	All fields	Computer and mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total holding second job (number).....	77,500	3,600	13,800	3,700	9,700	12,400	23,600	10,700
	Percent							
Closely related.....	65	59	52	67	44	64	81	64
Somewhat related.....	21	21	25	S	27	25	12	24
Not related.....	15	20	23	S	29	11	7	12

KEY: S = Suppressed due to too few cases (fewer than 1,000 weighted cases).

NOTES: Numbers are rounded to nearest hundred. Percents are rounded to the whole number. Details may not add to totals because of rounding.

Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 28. Employment changes in doctoral scientists and engineers since 1995, by field of doctorate: 1997

April 2002

Employment change	Field of doctorate							
	All fields	Computer and mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total employed in 1997 (number).....	518,400	32,400	124,600	17,200	105,300	71,100	79,300	88,600
	Percent							
Not employed in 1995.....	5	5	6	S	5	5	4	6
No change since 1995.....	74	74	74	72	72	77	77	70
Change in employer and job.....	10	10	11	11	11	8	9	11
Change in employer only.....	4	5	4	S	4	4	5	4
Change in job only.....	7	6	6	8	8	6	6	8

KEY: S = Suppressed due to too few cases (fewer than 1,000 weighted cases).

NOTES: Numbers are rounded to nearest hundred. Percents are rounded to the whole number. Details may not add to totals because of rounding.

Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 29. Reasons for changing employer and/or job since 1995 for doctoral scientists and engineers, by field of doctorate: 1997

April 2002

Reasons	Field of doctorate							
	All fields	Computer and mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total changing employer and/or job (number).....	109,600	69,000	25,600	4,100	23,600	12,700	15,400	21,200
	Percent							
Pay or promotion opportunities.....	53	50	54	54	51	53	54	55
Working conditions.....	28	27	25	33	24	31	39	24
Job location.....	20	18	23	S	19	20	25	17
Change in career.....	33	30	32	33	33	28	28	41
Family-related reasons.....	12	S	15	S	9	11	15	9
School-related reasons.....	13	S	16	S	11	10	14	13
Laid off or job terminated.....	18	18	17	S	22	18	18	13
Retired.....	4	S	S	S	6	S	S	5
Other reason.....	14	S	13	S	14	18	13	12

KEY: S = Suppressed due to too few cases (fewer than 1,000 weighted cases).

NOTES: Numbers are rounded to nearest hundred. Percents are rounded to the whole number. Details may not add to total because of rounding and because multiple answers were allowed. Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 30. Overall job satisfaction of doctoral scientists and engineers, by field of doctorate, sex, and race/ethnicity: 1997

April 2002

Level of overall job satisfaction, sex and race/ethnicity	Field of doctorate								
	All fields	Computer and information sciences	Mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total employed (number)	518,400	8,000	24,400	124,600	17,200	105,300	71,100	79,300	88,600
	Percent								
Very satisfied	53	51	52	53	50	52	55	56	50
Somewhat satisfied	37	38	38	36	39	37	36	34	40
Very/somewhat dissatisfied	10	S	10	10	11	11	9	10	10
Sex									
Male (number)	399,100	6,700	21,200	92,400	8,100	92,700	50,500	44,100	83,400
	Percent								
Very satisfied	54	51	52	55	52	53	56	57	50
Somewhat satisfied	37	39	38	35	39	37	35	33	40
Very/somewhat dissatisfied	10	S	9	10	S	11	9	10	10
Female (number)	119,300	1,300	3,200	32,200	9,000	12,600	20,500	35,200	5,200
	Percent								
Very satisfied	50	S	49	48	49	47	51	55	40
Somewhat satisfied	38	S	39	40	39	40	37	34	46
Very/somewhat dissatisfied	10	S	S	12	12	14	12	11	S
Race/ethnicity[1]									
White (number)	424,200	5,400	19,600	105,500	14,400	86,200	60,700	72,400	60,000
	Percent								
Very satisfied	55	51	54	55	51	54	56	57	53
Somewhat satisfied	35	39	36	35	38	35	34	33	37
Very/somewhat dissatisfied	10	S	10	10	11	11	10	10	10
Asian/Pacific Islander (number)	68,900	2,300	3,900	13,900	1,600	14,900	5,300	1,500	25,500
	Percent								
Very satisfied	42	51	39	44	S	39	41	S	43
Somewhat satisfied	48	S	51	46	S	49	50	S	48
Very/somewhat dissatisfied	10	S	S	10	S	12	S	S	9
Other (number)	25,400	300	900	5,200	1,300	4,100	5,100	5,400	3,100
	Percent								
Very satisfied	50	S	S	50	S	52	48	51	51
Somewhat satisfied	38	S	S	38	S	33	43	34	40
Very/somewhat dissatisfied	12	S	S	S	S	S	S	S	S

[1] Race/ethnicity shown for all doctorate recipients, including temporary residents.

KEY: S = Suppressed due to too few cases (fewer than 1,000 weighted cases).

NOTES: Numbers are rounded to nearest hundred. Percents are rounded to the whole number. Details may not add to total because of rounding.

Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 31. Job security concerns among doctoral scientists and engineers, by field of doctorate: 1997

April 2002

Level of concern	Field of doctorate							
	All fields	Computer and mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total employed (number)	518,400	32,400	124,600	17,200	105,300	71,100	79,300	88,600
	Percent							
Concern about their own job loss								
Very concerned	6	4	7	S	7	5	5	5
Somewhat concerned	14	11	14	14	16	11	13	16
Not very concerned	80	85	79	80	78	84	82	79
Concern about other family members' job loss								
Very concerned	3	S	4	S	3	3	3	2
Somewhat concerned	8	7	9	9	8	8	9	8
Not very concerned	47	47	47	48	47	50	48	44
No other working adult in household	42	44	41	39	43	39	40	46

KEY: S = Suppressed due to too few cases (fewer than 1,000 weighted cases).

NOTES: Data are based on a question that asked how concerned they are that a job loss will occur in the next 12 months. Numbers are rounded to nearest hundred. Percents are rounded to the whole number. Details may not add to totals because of rounding. Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 32. Reasons for losing job among doctoral scientists and engineers who had lost or left a job in the past, by field of doctorate: 1997

April 2002

Reason for job loss	Field of doctorate							
	All fields	Computer and mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total that lost or left a job (number)	71,600	3,300	14,800	2,100	16,600	8,600	12,300	13,900
	Percent							
Self-operated business ended	8	5	S	S	S	12	11	S
Company, facility or agency closed down	29	41	26	S	29	22	27	34
Company facility or agency moved	9	S	10	S	11	S	S	11
Work, services, company, or facility was reorganized	50	42	51	53	52	48	50	47
Work, services, company or facility was taken over	15	S	16	S	19	S	12	17
Work, services, company, or facility had insufficient business	41	48	34	S	40	45	42	48
Other reason	16	S	16	S	16	16	17	14

KEY: S = Suppressed due to too few cases (fewer than 1,000 weighted cases).

NOTES: Numbers are rounded to nearest hundred. Percents are rounded to the whole number. Details may not add to totals because of rounding and because multiple answers were allowed. Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 33. Length of time taken to find a new job and comparison of new to previous job among doctoral scientists and engineers who had lost or left their job in the past, by field of doctorate: 1997

April 2002

Length of time to find new job and comparison of new to previous job	Field of doctorate							
	All fields	Computer and mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total that had lost or left a job in the past and later took a new job (number)	70,900	3,300	14,600	2,100	16,500	8,500	12,100	13,800
	Percent							
Time it took to find new job								
Less than 1 month	30	33	27	S	27	25	37	31
1-3 months	30	35	31	S	28	30	32	29
4-6 months	20	S	20	S	24	19	16	22
7-12 months	12	S	15	S	13	15	10	11
More than 1 year	8	S	7	S	8	S	S	7
Comparison of new to previous job in terms of								
Salary:								
Significantly more	31	32	33	S	26	33	31	31
About the same	43	47	40	S	46	36	44	48
Significantly less	26	S	27	S	28	30	25	22
Level of responsibility:								
Significantly more	35	S	37	S	33	36	40	32
About the same	45	58	41	S	46	46	43	50
Significantly less	20	S	22	S	22	19	18	17
Utilizing knowledge or skills:								
Significantly more	33	S	35	S	30	37	31	36
About the same	52	60	50	S	53	44	56	52
Significantly less	15	S	15	S	17	18	12	13

KEY: S = Suppressed due to too few cases (fewer than 1,000 weighted cases).

NOTES: Numbers are rounded to nearest hundred. Percents are rounded to the whole number. Details may not add to total because of rounding.

Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 34. Likelihood of doctorate scientists and engineers in choosing the same field of study if given a chance by field of doctorate and sex: 1997

April 2002

Likelihood of choosing the same field of study	Field of doctorate								
	All fields	Computer and information sciences	Mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total employed (number)	518,400	8,000	24,400	124,600	17,200	105,300	71,100	79,300	88,600
					Percent				
Very likely	55	77	57	55	57	51	57	55	56
Somewhat likely	30	18	28	30	30	30	30	33	30
Not at all likely	15	S	15	16	13	18	13	13	14
Male (number)	399,100	6,700	21,200	92,400	8,100	92,700	50,500	44,100	83,400
					Percent				
Very likely	56	77	58	55	55	53	58	54	56
Somewhat likely	30	17	27	30	30	30	29	32	30
Not at all likely	15	S	15	15	15	18	12	13	14
Female (number)	119,300	1,300	3,200	32,200	9,000	12,600	20,500	35,200	5,200
					Percent				
Very likely	53	75	56	52	58	43	52	55	53
Somewhat likely	32	S	33	30	29	35	32	33	31
Not at all likely	16	S	S	18	12	23	16	12	S

KEY: S = Suppressed due to too few cases (fewer than 1,000 weighted cases).

NOTES: Numbers are rounded to nearest hundred. Percents are rounded to the whole number. Details may not add to total because of rounding.

Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 35. Professional society or association membership of doctoral scientists and engineers, by field of doctorate: 1997

April 2002

Number of memberships	Field of doctorate								
	All fields	Computer and information sciences	Mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total (number)	582,100	8,100	27,000	142,100	18,900	121,000	80,700	86,900	97,500
	Percent								
None	17	24	20	16	9	18	19	13	17
One	S	S	S	S	S	S	S	S	S
Two	23	29	24	22	21	26	23	21	25
Three	18	15	17	18	21	17	19	18	17
Four or more	22	S	S	27	36	15	26	25	17

KEY: S = Suppressed due to too few cases (fewer than 1,000 weighted cases).

NOTES: Numbers are rounded to nearest hundred. Percents are rounded to the whole number. Details may not add to totals because of rounding.

Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 36. Work-related training activities of doctoral scientists and engineers, by field of doctorate: 1997

April 2002

Training areas and reasons for taking training	Field of doctorate							
	All fields	Computer and mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total (number)	582,100	35,000	142,100	18,900	121,000	80,700	86,900	97,500
	Percent							
Taken work-related training in the past year	49	40	46	66	43	43	69	49
Did not take work-related training	51	60	54	34	57	57	31	51
Total taking training (number)	286,900	14,200	65,800	12,500	52,200	34,400	60,000	47,900
Type of training:	Percent							
Management/supervisor training	26	26	28	28	31	24	17	33
Training in occupational field	77	78	74	82	70	71	91	76
General professional training	20	14	21	23	21	23	13	24
Other work-related training	23	21	25	25	27	31	16	21
Most important reasons for taking training:								
To change occupational field	2	S	3	S	2	S	S	3
Further skills in occupational field	65	69	69	64	64	64	63	65
Licensure/certification	7	S	4	10	2	3	22	S
Increase opportunities	4	S	4	S	6	4	2	5
Learn skills for new position	7	8	6	S	8	8	3	9
Required or expected by employer	9	9	10	S	12	10	4	11
Other reasons	5	S	5	S	5	9	3	5

KEY: S = Suppressed due to too few cases (fewer than 1,000 weighted cases).

NOTES: Numbers are rounded to nearest hundred. Percents are rounded to the whole number. Details may not add to totals because of rounding. Details will not add to total for types of work-related training because multiple answers were allowed. Survey of Doctorate Recipients includes persons who had earned research doctorate from U.S. institutions and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 37. Type of employment wanted by recent doctoral recipients when they began doctoral program, by field of doctorate: 1997

April 2002

Type of employment wanted	Field of doctorate								
	All fields	Computer and information sciences	Mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total recent doctoral recipients (number)	119,300	4,100	4,500	28,200	5,700	20,500	14,700	16,800	24,700
					Percent				
Type of work wanted:									
Teaching	64	66	84	65	73	56	85	58	56
Research	85	87	89	94	84	94	81	53	88
Management/administration	15	S	S	14	27	13	16	15	17
Professional	29	27	S	16	36	11	18	72	37
Other	6	S	S	4	S	S	10	S	8
Employment setting most wanted:									
College or university	61	64	85	73	69	56	79	42	46
Business or industry	24	32	S	19	S	36	S	10	45
Other	15	S	S	8	18	7	16	48	9

KEY: S = Suppressed due to too few cases (fewer than 1,000 weighted cases).

NOTES: 'Recent doctoral recipients' are those who reported having received their doctorate between June of 1990 and 1996. 'Type of employment wanted' is based on two sets of questions asking respondents to think back to when they began their doctoral program, what they wanted to do and where they most wanted to work. Details may not add to total because of rounding. Details of types of work wanted will not add to total because multiple answers were allowed. Numbers are rounded to nearest hundred. Percents are rounded to the whole number. Survey of Doctorate Recipients includes persons who had earned research doctorate from U.S. institutions and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 38. Perception of job market at the time of doctoral degree completion, and benefit of doctoral degree by recent doctoral recipients by field of doctorate: 1997

April 2002

Perception and benefit	All fields	Computer and mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
	Field of doctorate							
Total recent doctoral recipients (number)	119,300	8,600	28,200	5,700	20,500	14,700	16,800	24,700
	Percent							
Job market for postdocs:								
Excellent	9	S	17	S	6	S	7	6
Good	26	15	34	41	25	11	30	23
Fair	33	22	31	24	36	33	39	33
Very poor	25	42	15	S	31	40	17	25
Don't know or not applicable	8	S	S	S	S	12	8	13
Job market for positions other than postdocs:								
Excellent	5	13	S	S	S	S	S	8
Good	20	19	17	41	12	17	24	25
Fair	36	31	35	29	33	39	42	38
Very poor	34	33	40	S	50	37	21	26
Don't know or not applicable	5	S	5	S	S	S	8	S
Doctoral degree helped:								
Begin first career	61	57	67	26	73	57	56	58
Further a career already started	27	28	25	63	19	24	24	29
Change careers	10	S	6	S	S	17	18	9
In ways not related to career	3	S	S	S	S	S	S	4

KEY: S = Suppressed due to too few cases (fewer than 1,000 weighted cases).

NOTES: 'Recent doctoral recipients' are those who reported having received their doctorate between June of 1990 and 1996. Job market perception is based on a question that asked how they thought the job market was at the time of doctoral degree completion. Benefit of doctoral degree is based on a question that asked how they thought a doctoral degree would help their career. Details may not add to total because of rounding. Numbers are rounded to nearest hundred. Percents are rounded to the whole number. Survey of Doctorate Recipients includes persons who had earned research doctorate from U.S. institutions and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 39. Career path job status of recent doctoral recipients, by field of doctorate: 1997

April 2002

Career path job status	Field of doctorate								
	All fields	Computer and information sciences	Mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total recent doctoral recipients (number).....	119,300	4,100	4,500	28,200	5,700	20,500	14,700	16,800	24,700
	Percent								
Holding a job.....	77	87	77	72	81	74	82	85	77
Accepted but not begun job.....	2	S	S	4	S	S	S	S	S
Not holding, but seeking job.....	11	S	S	14	S	12	S	9	12
Not holding, not seeking job.....	9	S	S	11	S	11	10	S	10

KEY: S = Suppressed due to too few cases (fewer than 1,000 weighted cases).

NOTES: 'Recent doctorate recipients' are those who reported having received their doctorate between June of 1990 and 1996. Data is based on questions that asked about the career job status since doctoral degree completion. Details may not add to total because of rounding. Numbers are rounded to nearest hundred. Percents are rounded to the whole number. Survey of Doctorate Recipients includes persons who had earned research doctorate from U.S. institutions and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 40. Aspects of a career path job that were greatly or somewhat affected by completion of doctoral degree for recent doctoral recipients, by field of doctorate: 1997

April 2002

Aspect of career path job	Field of doctorate							
	All fields	Computer and mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total recent doctoral recipients holding a career path job before completion of doctoral degree (number)	22,000	1,500	2,800	1,900	2,000	4,700	5,000	4,100
	Percent							
Aspects of career path job that were greatly or somewhat affected by doctoral degree:								
Salary level	63	83	60	61	73	56	65	62
Level of responsibility	60	68	63	66	64	43	64	66
Job security	61	64	60	65	59	57	65	59
Degree of interesting or rewarding work	63	68	66	66	64	52	61	71
Degree of technically demanding work	53	S	58	S	64	39	47	72
Management activities	45	S	50	S	S	34	51	53
Other	10	S	S	S	S	S	S	S

KEY: S = Suppressed due to too few cases (fewer than 1,000 weighted cases).

NOTES: 'Recent doctoral recipients' are those who reported having received their doctorate between June of 1990 and 1996. Numbers are rounded to nearest hundred.

Percents are rounded to the whole number. Details may not add to totals because of rounding and because multiple answers were allowed.

Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 41. Most important resource used and length of time taken to find first career path job for recent doctoral recipients, by field of doctorate: 1997

April 2002

Resource and length of time	Field of doctorate							
	All fields	Computer and mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total recent doctoral recipients holding a career path job (number)	73,200	2,600	18,400	2,900	13,900	7,600	9,500	15,400
	Percent							
Most important job search resource:								
Faculty or advisor	23	18	29	S	24	25	12	25
Informal channels through colleagues or friends	26	27	22	S	21	23	34	29
Professional meetings and/or journals	23	28	24	S	26	30	20	15
Other resource [1]	28	27	25	S	30	22	34	32
Length of time between completion of first doctoral degree and first career path job:								
Less than 1 month [2]	54	55	58	48	56	48	45	56
1-6 months	26	33	24	S	19	32	31	27
7-12 months	8	S	6	S	8	S	S	7
More than 12 months	12	S	11	S	17	S	14	10

[1] 'Other resource' includes professional recruiter, college/department placement office, electronic postings, newspapers, direct contact with company, and other.

[2] Includes those who already held a career path job before completion of doctoral degree.

KEY: S = Suppressed due to too few cases (fewer than 1,000 weighted cases).

NOTES: 'Recent doctoral recipients' are those who reported having received their doctorate between June of 1990 and 1996. Numbers are rounded to nearest hundred. Percents are rounded to the whole number. Details may not add to totals because of rounding. Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 42. Factors that somewhat or greatly limited career path job search by recent doctoral recipients, by field of doctorate: 1997

April 2002

Factors limiting career path job search	Field of doctorate							
	All fields	Computer and mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total recent doctoral recipients seeking or holding a career path job (number)	84,200	6,200	21,500	3,200	16,100	9,100	10,300	17,700
	Percent							
Factors that somewhat or greatly limited career path job search:								
Family responsibilities	39	31	43	45	37	38	44	35
Spouse's career or employment	35	32	39	40	33	36	40	26
Debt from undergraduate or graduate degree(s)	15	S	15	S	12	16	31	12
Desire to not relocate	36	31	36	45	31	37	52	31
Suitable job not available	52	52	45	45	59	62	51	50
Other	8	S	8	S	9	S	10	8

KEY: S = Suppressed due to too few cases (fewer than 1,000 weighted cases).

NOTES: 'Recent doctoral recipients' are those who reported having received their doctorate between June of 1990 and 1996. Numbers are rounded to nearest hundred. Percents are rounded to the whole number. Details may not add to totals because multiple answers were allowed. Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 43. Primary reason for working in a career path job outside doctoral degree field by recent doctoral recipients: 1997

April 2002

Primary reason	All fields
Total recent doctoral recients reporting career path job is not related to the doctoral field (number)	1,300
	Percent
Pay or promotion opportunities	17
Working conditions	3
Job location	12
Change in career or professional interests	21
Family-related reasons	2
Job in doctoral field not available	39
Other	7

NOTES: 'Recent doctoral recipients' are those who reported having received their doctorate between June of 1990 and 1996.

Numbers are rounded to nearest hundred. Percents are rounded to the whole number. Details may not add to totals because of rounding.

Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 44. Areas of training in which recent doctoral recipients thought their doctoral program had somewhat or very adequately prepared them for a career, by field of doctorate: 1997

April 2002

Areas of doctoral training	Field of doctorate								
	All fields	Computer and information sciences	Mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total recent doctoral recipients (number)	119,300	4,100	4,500	28,200	5,700	20,500	14,700	16,800	24,700
	Percent								
General problem solving skills	97	98	93	98	95	99	92	94	99
Subject matter knowledge	97	97	93	96	98	96	97	98	97
Oral communication skills	89	90	76	93	91	89	87	91	86
Teaching skills	73	72	83	72	74	76	72	72	72
Collaboration and teamwork skills	80	80	64	84	84	82	70	82	81
Quantitative skills	92	92	89	94	94	96	81	90	95
Writing skills	92	93	71	92	95	90	93	95	92
Computer skills	85	98	78	85	85	90	79	71	95
Research integrity/ethics	92	91	84	92	95	92	91	97	92
Establishing contacts with colleagues in field	80	86	75	82	88	79	78	78	79
Management or administrative skills	38	35	23	38	49	35	34	41	40

NOTES: 'Recent doctoral recipients' are those who reported having received their doctorate between June of 1990 and 1996. Numbers are rounded to nearest hundred. Percents are rounded to the whole number. Details may not add to totals because of rounding and because multiple answers were allowed. Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 45. First area of the doctoral program in which recent doctoral recipients would have liked more training, by field of doctorate: 1997

April 2002

Doctoral program area	Field of doctorate							
	All fields	Computer and mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total recent doctoral recipients (number)	119,300	8,600	28,200	5,700	20,500	14,700	16,800	24,700
Additional training desired (number)	92,000	5,900	22,400	4,500	15,300	11,600	13,900	18,400
	Percent							
General problem solving skills	4	S	5	S	S	S	S	S
Subject matter knowledge	8	S	6	S	7	10	11	7
Oral communication skills	9	S	8	S	13	S	S	12
Teaching skills	14	S	16	S	11	18	15	12
Collaboration and teamwork skills	7	S	7	S	7	S	S	11
Quantitative skills	5	S	5	S	S	13	S	S
Writing skills	7	S	10	S	9	S	S	7
Computer skills	10	S	11	S	10	11	11	6
Research integrity/ethics	2	S	S	S	S	S	S	S
Establishing contacts with colleagues in field	15	18	13	S	16	19	15	15
Management or administrative skills	18	S	18	S	21	S	23	22

KEY: S = Suppressed due to too few cases (fewer than 1,000 weighted cases).

NOTES: 'Recent doctoral recipients' are those who reported having received their doctorate between June of 1990 and 1996.

Numbers are rounded to nearest hundred. Percents are rounded to the whole number. Details may not add to totals because of rounding.

Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 46. Overall satisfaction with the doctoral program by recent doctoral recipients, by field of doctorate: 1997

April 2002

Level of overall satisfaction with doctoral program	Field of doctorate								
	All fields	Computer and information sciences	Mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total recent doctoral recipients (number)...	119,300	4,100	4,500	28,200	5,700	20,500	14,700	16,800	24,700
	Percent								
Very satisfied...	58	62	55	58	65	58	54	55	59
Somewhat satisfied...	35	35	36	34	30	35	36	38	36
Very/somewhat dissatisfied...	7	S	S	8	S	7	10	7	5

KEY: S = Suppressed due to too few cases (fewer than 1,000 weighted cases).

NOTES: 'Recent doctoral recipients' are those who reported having received their doctorate between June of 1990 and 1996. Numbers are rounded to nearest hundred. Percents are rounded to the whole number. Details may not add to totals because of rounding. Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 47. Retired doctoral scientists and engineers, by field of doctorate and age: 1997

October 2002

Age	Field of doctorate							
	All fields	Computer and mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total retired (number)	46,200	2,100	12,000	1,100	12,000	7,300	4,800	6,800
	Percent							
Age group								
Under 65	27	S	26	S	27	20	28	32
65-75	73	59	74	S	73	80	72	68

KEY: S = Suppressed due to too few cases (fewer than 1,000 weighted cases).

NOTES: Numbers are rounded to nearest hundred. Percents are rounded to the whole number. Details may not add to totals because of rounding.

Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 48. Principal occupation of doctoral scientists and engineers, by employment sector: 1997

October 2002

Principal occupation	Employment sector								
	Total	University and 4-year college	Other educational institution	Private for-profit company	Self-employed	Private not-for-profit organization	Federal government	State/local government	Other employer
Total employed (number)	518,400	233,200	13,600	165,000	25,100	26,300	38,100	15,400	1,600
	Percent								
Science and engineering occupations	75	82	64	69	71	62	79	63	72
Computer and information scientists	5	3	S	10	S	S	3	S	S
Mathematical scientists	4	6	S	1	S	S	3	S	S
Life and related scientists	19	26	14	11	5	15	24	14	S
Physical and related scientists	14	14	13	15	5	8	23	8	S
Social and related scientists	11	21	13	2	S	5	7	S	S
Psychologists	9	3	18	7	49	21	6	27	S
Engineers	13	10	S	23	6	7	13	S	S
Non-science and engineering occupations	25	18	36	31	29	38	21	37	S
Top/mid-level managers, administrators, etc.	14	8	10	21	6	24	15	26	S
Other non-S&E occupations	11	10	26	10	23	14	6	11	S

KEY: S = Suppressed due to too few cases (fewer than 1,000 weighted cases).

NOTES: Numbers are rounded to nearest hundred. Percents are rounded to the whole number. Details may not add to totals because of rounding.

Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 49. Principal occupation of doctoral scientists and engineers, by years since doctorate: 1997

October 2002

Principal occupation	Years since doctorate				
	Total	5 years or less	6-15 years	16-25 years	More than 25 years
Total employed (number)	518,400	110,100	165,600	143,400	99,400
	Percent				
Science and engineering occupations	75	84	77	69	70
Computer and information scientists	5	7	5	4	3
Mathematical scientists	4	4	3	4	5
Life and related scientists	19	22	20	16	16
Physical and related scientists	14	13	14	12	17
Social and related scientists	11	11	11	13	11
Psychologists	9	9	10	9	5
Engineers	13	17	13	11	14
Non-science and engineering occupations	25	16	23	31	30
Top/mid-level managers, administrators, etc.	14	5	11	19	19
Other non-S&E occupations	11	11	11	11	11

KEY: S = Suppressed due to too few cases (fewer than 1,000 weighted cases).

NOTES: Numbers are rounded to nearest hundred. Percents are rounded to the whole number. Details may not add to totals because of rounding.

Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

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Table 1a. Standard errors on distribution of doctoral scientists and engineers, by field of doctorate: 1997

April 2002

Field of doctorate	Number	Percent
Total	2,712.3	N/A
Sciences	2,403.6	0.2
Computer and mathematical sciences	570.9	0.1
Computer/information sciences	321.7	0.1
Mathematical sciences	518.9	0.1
Biological and agricultural sciences	1,164.2	0.2
Agricultural/food sciences	489.8	0.1
Biological sciences	1,060.9	0.2
Environmental life sciences	274.7	0.0
Health sciences	308.7	0.1
Physical and related sciences	1,209.9	0.2
Chemistry except biochemistry	1,005.0	0.2
Earth/atmosperic/ocean sciences	363.6	0.1
Physics and astronomy	670.4	0.1
Social sciences	1,153.7	0.2
Economics	670.4	0.1
Political and related sciences	607.0	0.1
Sociology	494.2	0.1
Other social sciences	850.0	0.1
Psychology	1,048.6	0.2
Engineering	1,193.3	0.2
Aerospace/aeronautical engineering	350.8	0.1
Chemical engineering	603.4	0.1
Civil engineering	486.0	0.1
Electrical/computer engineering	615.3	0.1
Materials/metallurgical engineering	505.1	0.1
Mechanical engineering	529.0	0.1
Other engineering	832.7	0.1

KEY: N/A= Not applicable

NOTES: Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 2a. Standard errors on demographic characteristics of doctoral scientists and engineers, by field of doctorate: 1997

April 2002

Demographic characteristic	Field of doctorate								
	All fields	Computer and information sciences	Mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total (number)	2,712.3	321.7	518.9	1,164.2	308.7	1,209.9	1,153.7	1,048.6	1,193.3
					Percent				
Year of doctorate									
Pre-1960	0.1	S	0.6	0.2	S	0.4	0.3	0.3	0.3
1960-69	0.2	S	1.1	0.4	0.4	0.6	0.5	0.5	0.6
1970-79	0.2	S	1.2	0.4	0.8	0.5	0.9	0.7	0.7
1980-84	0.2	S	0.7	0.2	0.6	0.3	0.5	0.5	0.5
1985-89	0.2	2.3	0.6	0.3	0.6	0.4	0.5	0.5	0.4
1990-92	0.1	1.8	0.7	0.3	0.5	0.3	0.4	0.4	0.5
1993-94	0.1	1.8	0.6	0.3	0.6	0.3	0.4	0.3	0.4
1995-96	0.1	1.4	0.4	0.1	0.4	0.2	0.2	0.2	0.2
Sex									
Male	0.2	1.0	0.6	0.3	0.8	0.3	0.5	0.7	0.2
Female	0.2	1.0	0.6	0.3	0.8	0.3	0.5	0.7	0.2
Race/ethnicity[1]									
White	0.2	2.0	1.1	0.3	0.6	0.4	0.5	0.4	0.6
Black	0.1	S	S	0.1	S	0.1	0.3	0.2	0.2
Asian/Pacific Islander	0.2	2.1	1.0	0.3	0.5	0.4	0.4	0.2	0.6
Hispanic	0.1	S	S	0.1	S	0.2	0.3	0.2	0.2
American Indian/Alaskan Native	--	S	S	S	S	S	S	S	S
Age									
Under 35	0.2	2.7	0.8	0.3	0.5	0.4	0.4	0.4	0.5
35-39	0.2	2.6	0.8	0.3	0.7	0.5	0.5	0.5	0.5
40-44	0.2	2.4	0.9	0.5	1.0	0.4	0.7	0.7	0.4
45-49	0.2	2.2	1.0	0.4	0.9	0.4	0.7	0.6	0.6
50-54	0.2	S	1.2	0.4	1.0	0.5	0.8	0.6	0.6
55-59	0.2	S	1.0	0.4	0.8	0.5	0.8	0.5	0.6
60-64	0.2	S	1.0	0.3	0.6	0.4	0.5	0.5	0.5
65-75	0.2	S	0.8	0.4	0.5	0.5	0.7	0.4	0.4
Citizenship status									
U.S. citizen	0.2	2.2	0.8	0.3	0.4	0.4	0.4	0.2	0.5
Non-U.S. citizen	0.2	2.2	0.8	0.3	0.4	0.4	0.4	0.2	0.5
Permanent U.S. resident	0.7	3.0	2.9	1.6	3.5	1.5	2.7	3.2	1.2
Temporary U.S. resident	0.7	3.0	2.9	1.6	3.5	1.5	2.7	3.2	1.2

[1] Race/ethnicity shown for all doctorate recipients, including temporary residents.

KEY: -- = Estimate is less than 0.5 percent and estimated weighted cases >=1,000.

S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients.

Table 3a. Standard errors on demographic characteristics of doctoral scientists and engineers, by years since doctorate: 1997

April 2002

Demographic characteristic	Total	Years since doctorate: 5 years or less	6-15 years	16-25 years	More than 25 years
Total (number)	2,712.3	1,025.6	1,652.5	1,470.4	1,498.4
			Percent		
Sex					
Male	0.2	0.4	0.4	0.4	0.2
Female	0.2	0.4	0.4	0.4	0.2
Race/ethnicity[1]					
White	0.2	0.5	0.4	0.4	0.4
Black	0.1	0.2	0.2	0.2	0.1
Asian/Pacific Islander	0.2	0.5	0.4	0.4	0.3
Hispanic	0.1	0.2	0.2	0.1	0.2
American Indian/Alaskan Native	--	S	S	S	S
Citizenship status					
U.S. citizen	0.2	0.4	0.3	0.2	0.2
Non-U.S. citizen	0.2	0.4	0.3	0.2	0.2

[1] Race/ethnicity shown for all doctorate recipients, including temporary residents.

KEY: -- = Estimate is less than 0.5 percent and estimated weighted cases >=1,000.
S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients.

Table 4a. Standard errors on laborforce status of doctoral scientists and engineers, by field of doctorate: 1997

April 2002

Employment status	Field of doctorate							
	All fields	Computer and mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total (number)	2,712.3	570.9	1,164.2	308.7	1,209.9	1,153.7	1,048.6	1,193.3
	Percent							
Employed full-time [1]	0.2	0.8	0.4	0.8	0.6	0.8	0.6	0.6
Employed part-time [1]	0.2	0.6	0.3	0.6	0.4	0.5	0.6	0.3
Unemployed, seeking employment	0.1	S	0.1	S	0.2	S	S	S
Retired	0.1	0.5	0.3	0.5	0.4	0.6	0.3	0.5
Not employed, not seeking	0.1	S	0.2	S	0.2	0.3	0.3	0.2

[1] Includes those who held postdoctoral appointments.

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients.

Table 5a. Standard errors on reason for not working as reported by doctoral scientists and engineers, by age: 1997

April 2002

Reasons for not working	All ages	Age 64 and under	Age 65 and above
Total not employed (number)	1,010.6	822.7	800.9
		Percent	
Retired	0.7	1.6	0.6
On layoff	0.3	0.7	S
Student	0.3	0.6	S
Family responsibilities	0.5	1.0	S
Ill/disabled	0.5	0.8	S
Suitable job not available	0.5	1.1	S
No need or desire to work	0.6	1.0	0.6
Other reason	0.4	0.7	S

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients.

Table 6a. Standard errors on reasons for working part-time as reported by doctoral scientists and engineers, by age: 1997

April 2002

Reason for working part-time	All ages	Age 64 and under	Age 65 and above
Total employed part-time (number)	962.2	1,007.5	452.4
		Percent	
Retired or semi-retired	1.2	1.1	2.7
Student	0.4	0.5	S
Family responsibilities	1.1	1.3	S
Ill/disabled	0.5	0.6	S
Suitable full-time job not available	1.1	1.3	S
No need or desire for full-time work	1.2	1.5	2.4
Other reason	0.9	0.9	S

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients.

Table 7a. Standard errors on employment status of doctoral scientists and engineers, by field of doctorate and sex: 1997

April 2002

Labor force status and sex	Field of doctorate							
	All fields	Computer and mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total in labor force (number)	2,792.7	577.0	1,206.0	280.9	1,131.5	1,256.5	1,021.0	1,318.8
					Percent			
Employed full-time[1]	0.2	0.6	0.3	0.6	0.5	0.5	0.6	0.4
Employed part-time[1]	0.2	0.6	0.3	0.6	0.4	0.5	0.6	0.4
Unemployed, seeking employment	0.1	S	0.1	S	0.2	S	S	S
Male (number)	2,509.4	578.0	1,081.7	220.6	1,123.0	1,142.5	907.3	1,301.6
					Percent			
Employed full-time[1]	0.2	0.6	0.4	0.8	0.5	0.6	0.8	0.4
Employed part-time[1]	0.2	0.5	0.3	S	0.4	0.6	0.7	0.4
Unemployed, seeking employment	0.1	S	0.2	S	0.2	S	S	S
Female (number)	1,131.9	179.5	478.6	208.8	325.9	410.5	690.1	199.6
					Percent			
Employed full-time[1]	0.5	2.4	0.6	1.0	1.2	1.1	1.1	1.5
Employed part-time[1]	0.5	S	0.6	S	1.1	1.1	1.1	S
Unemployed, seeking employment	0.1	S	S	S	S	S	S	S

[1] Includes those who held postdoctoral appointments.

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients.

Table 8a. Standard errors on employment sector of doctoral scientists and engineers, by field of doctorate: 1997

April 2002

Employment sector	Field of doctorate								
	All fields	Computer and information sciences	Mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total employed (number)	2,748.1	318.4	534.5	1,216.8	286.6	1,131.9	1,247.4	1,017.6	1,305.4
					Percent				
Education institution	0.4	2.8	1.2	0.7	1.2	0.6	1.0	0.9	0.9
Private industry	0.4	3.0	1.2	0.6	1.1	0.8	0.8	1.0	1.1
Government	0.2	S	0.6	0.4	0.9	0.4	0.7	0.6	0.5
Self-employed or other	0.2	S	S	0.2	S	0.3	0.4	0.8	0.3

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients.

Table 9a. Standard errors on employer characteristics of doctoral scientists and engineers, by field of doctorate: 1997

April 2002

Employer characteristic	Field of doctorate							
	All fields	Computer and mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total employed (number)	2,748.1	580.4	1,216.8	286.6	1,131.9	1,247.4	1,017.6	1,305.4
					Percent			
Employer size								
Under 10 employees	0.2	0.5	0.3	0.8	0.4	0.6	0.8	0.6
10-24 employees	0.1	S	0.2	S	0.2	0.2	0.3	0.3
25-99 employees	0.1	0.6	0.2	S	0.4	0.4	0.4	0.3
100-499 employees	0.2	1.0	0.4	0.6	0.4	0.6	0.6	0.5
500-999 employees	0.1	0.5	0.3	S	0.3	0.6	0.4	0.3
1,000-4,999 employees	0.2	1.0	0.4	0.8	0.4	0.7	0.4	0.6
5,000 or more employees	0.4	1.3	0.6	1.3	0.7	1.1	0.8	0.9
Employer a new business within past 5 years?								
Yes	0.2	0.6	0.3	S	0.4	0.3	0.4	0.5
No	0.2	0.6	0.3	0.5	0.4	0.3	0.4	0.5

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients.

Table 10a. Standard errors on relationship between work on principal job and doctoral degree as reported by doctoral scientists and engineers, by field of doctorate, 1997

April 2002

Relationship between principal job and doctoral degree	Field of doctorate								
	All fields	Computer and information sciences	Mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total employed (number)	2,748.1	318.4	534.5	1,216.8	286.6	1,131.9	1,247.4	1,017.6	1,305.4
					Percent				
Closely related	0.3	2.5	1.4	0.5	1.1	0.8	0.9	0.7	0.8
Somewhat related	0.3	2.3	1.2	0.5	1.0	0.7	0.9	0.7	0.7
Not related	0.2	S	0.9	0.3	S	0.4	0.5	0.4	0.5

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients.

Table 11a. Standard errors on most important reason for doctoral scientists and engineers to be working outside field of doctoral degree: 1997

April 2002

Most important reason	All fields
Total working outside doctoral degree field (number)	932.5
	Percent
Pay/promotion opportunities	0.9
Working conditions	0.6
Job location	0.5
Change in career or professional interest	1.2
Family-related reasons	0.5
Job in doctoral field not available	1.0
Other reason	0.8

NOTES: Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients.

Table 12a. Standard errors on primary work activity of doctoral scientists and engineers, by years since doctorate: 1997

April 2002

Primary work activity	Years since doctorate				
	Total	5 years or less	6-15 years	16-25 years	More than 25 years
Total employed (number)	2,748.1	803.6	1,624.9	1,604.5	1,505.5
	Percent				
Applied research	0.2	0.5	0.4	0.5	0.5
Basic research	0.3	0.5	0.4	0.4	0.5
Development	0.1	0.3	0.3	0.3	0.3
Design	0.1	0.2	0.2	0.2	0.2
Teaching	0.3	0.5	0.5	0.6	0.7
Management, sales, and administration[1]	0.3	0.4	0.4	0.5	0.7
Computer applications	0.1	0.4	0.3	0.3	0.3
Professional services	0.2	0.4	0.4	0.4	0.4
Other activity[2]	0.2	0.3	0.2	0.3	0.4

[1] Category includes: accounting, finance, contracts; employee relations including recruiting, personnel, development, and training; managing, supervising; sales, purchasing, marketing, customer service, public relations; and quality or productivity management.

[2] Category includes: production operations, maintenance, and other activity.

NOTES: Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering science and engineering research doctorate from U.S. institutions and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients.

Table 13a. Standard errors on similarity between work and expectations of doctoral scientists and engineers, by field of doctorate: 1997

April 2002

Level of similarity	Field of doctorate								
	All fields	Computer and information sciences	Mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total employed (number)	2,748.1	318.4	534.5	1,216.8	286.6	1,131.9	1,247.4	1,017.6	1,305.4
					Percent				
Very similar to expectation	0.3	2.8	1.5	0.6	1.3	0.7	1.0	0.9	0.9
Somewhat similar to expectation	0.3	3.0	1.4	0.4	1.2	0.6	0.9	0.7	0.9
Not very similar to expectation	0.3	S	1.3	0.5	0.9	0.7	0.8	0.6	0.7

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: Data are based on a question that asked how similar the work during a typical week on a primary job is to what they expected to be doing at the time they completed a doctoral degree. Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 14a. Standard errors on types of alternative or temporary work arrangements by doctoral scientists and engineers, by sex: 1997

April 2002

Type of work arrangement	Total	Sex	
		Male	Female
Total employed (number)	2,748.1	2,725.8	1,095.9
		Percent	
Self-employed working as an independent contractor	0.2	0.2	0.4
Principal employer contracted out employee services to other organization(s)	0.1	0.2	0.3
Working through a temporary help or employment agency	S	S	S
Working on an "as needed," "seasonal," or short-term basis	0.1	0.1	0.2
Job sharing	S	S	S
Working from home for 50 percent or more of work time	0.1	0.2	0.3
Something else	0.1	0.1	S

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients.

Table 15a. Standard errors on reasons for working in alternative or temporary work arrangements for doctoral scientists and engineers, by sex: 1997

April 2002

Reasons	Total	Sex	
		Male	Female
Total working in alternative/temporary arrangement (number)	1,298.7	1,103.4	622.2
		Percent	
Schedule flexibility	0.7	0.8	1.2
Only type of work found	0.5	0.7	0.7
To gain experience that might lead to a permanent job	0.3	0.4	S
Better pay	0.7	0.9	1.0
Family-related reason (e.g., children, spouse's job moved)	0.4	0.4	1.1
In school or some type of training program	S	S	S
Enjoy being own boss	0.8	1.0	1.2
Employer changed status to temporary	S	S	S
Other reason	0.9	1.1	1.3

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients.

Table 16a. Standard errors on employment benefits available to doctoral scientists and engineers, by field of doctorate: 1997

April 2002

Type of benefit	Field of doctorate								
	All fields	Computer and information sciences	Mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total employed (number)	2,748.1	318.4	534.5	1,216.8	286.6	1,131.9	1,247.4	1,017.6	1,305.4
Total receiving benefits (number)	2,744.0	331.9	516.0	1,173.5	292.8	1,123.3	1,223.1	1,056.9	1,302.5
					Percent				
Health insurance that was at least partially paid by employer	0.2	0.7	0.7	0.3	0.5	0.4	0.5	0.6	0.5
A pension plan or a retirement plan to which employer contributed	0.2	2.0	0.8	0.4	0.8	0.5	0.5	0.7	0.7
A profit-sharing plan	0.3	2.8	1.2	0.4	1.0	0.7	0.7	0.8	0.8
Paid vacation, sick or personal days	0.3	1.8	1.4	0.5	0.9	0.5	0.7	0.8	0.6

NOTES: Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from U.S. institutions and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients.

Table 17a. Standard errors on Federal Government support status of doctoral scientists and engineers, by field of doctorate: 1997

April 2002

Support status	Field of doctorate								
	All fields	Computer and information sciences	Mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total employed (number)	2,748.1	318.4	534.5	1,216.8	286.6	1,131.9	1,247.4	1,017.6	1,305.4
					Percent				
Received government support	0.3	2.4	1.2	0.6	1.1	0.7	0.8	0.6	0.7
No government support	0.3	2.4	1.2	0.6	1.1	0.7	0.8	0.6	0.7

NOTES: Data are based on a question that asked whether any of the work on primary job during the week of April 15 was supported by contracts or grants from the U.S. goverment. Numbers are rounded to nearest hundred. Percents are rounded to the whole number. Details may not add to total because of rounding. Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 18a. Standard errors on Federal Government support status of doctoral scientists and engineers, by employment sector: 1997

April 2002

Support status	Employment sector								
	All sectors	University and 4-year college	Other educational institution	Private for-profit	Self-employed	Private not-for-profit	Federal Government	State and local government	Other employer
Total employed (number)	2,748.1	2,235.2	578.8	2,194.9	878.6	847.4	1,047.5	651.4	194.7
					Percent				
Received government support	0.3	0.4	1.2	0.5	0.9	1.3	S	1.7	S
No government support	0.3	0.4	1.2	0.5	0.9	1.3	0.1	1.7	4.1

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: Data are based on a question that asked whether any of the work on primary job during the week of April 15 was supported by contracts or grants from the U.S. government. Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients.

Table 19a. Standard errors on Federal agencies and departments supporting work of doctoral scientists and engineers: 1997

April 2002

Federal agency or department	Standard error
Total receiving Federal Government support (number)	1,552.2
	Percent
Agency for International Development (AID)	0.2
Agriculture Department	0.3
Commerce Department	0.2
Defense Department (DOD)	0.6
Department of Education (includes NCES, OERI, FIPSE, FIRST)	0.2
Energy Department (DOE)	0.5
Environmental Protection Agency (EPA)	0.3
Health and Human Services Department (excluding NIH)	0.3
Interior Department	0.2
National Aeronautics and Space Administration (NASA)	0.4
National Institutes of Health (NIH)	0.5
National Science Foundation (NSF)	0.6
Transportation Department (DOT)	0.2
Other	0.3

NOTES: Data are based on questions that asked whether any of the work on primary job during the week of April 15 was supported by contracts or grants from the U.S. government and the agencies or departments that supported the work. Percents are rounded to the whole number. Details may not add to total because multiple answers were allowed. Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 20a. Standard errors on academically employed doctoral scientists and engineers, by field of doctorate and faculty rank: 1997

April 2002

Academic rank	Field of doctorate								
	All fields	Computer and information sciences	Mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total employed in academe (number).....	2,226.4	260.5	451.7	1,207.8	254.2	768.6	1,109.3	749.5	951.9
	Percent								
Professor.....	0.4	S	1.8	0.7	1.4	1.2	1.1	1.4	1.6
Associate professor.....	0.3	4.6	1.6	0.6	1.4	0.9	1.0	1.1	1.3
Assistant professor.....	0.4	4.3	1.3	0.7	1.6	0.8	1.0	1.0	1.1
Instructor, lecturer, adjunct faculty.....	0.3	S	S	0.5	S	0.6	0.6	0.7	0.7
Not applicable at institution.....	0.1	S	S	0.2	S	0.4	S	S	S
Not applicable for position.....	0.3	S	S	0.6	S	0.9	0.5	1.0	0.9

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: Academe includes 2-year and 4-year colleges, universities, medical schools, and university-affiliated research institutes. Those on postdoctoral appointments are also included in this table, mostly under "not applicable for position". Standard errors are rounded to nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients.

Table 21a. Standard errors on academically employed doctoral scientists and engineers, by years since doctorate, sex, and faculty rank, 1997

April 2002

Sex and academic rank	Total	Years since doctorate: 5 years or less	6-15 years	16-25 years	More than 25 years
Total employed in academe (number)	2,226.4	863.7	1,247.8	1,173.7	1,126.7
			Percent		
Professor	0.4	S	0.5	1.0	0.9
Associate professor	0.3	0.4	0.8	0.9	0.6
Assistant professor	0.4	1.0	0.8	0.4	S
Instructor, lecturer, adjunct faculty	0.3	0.7	0.4	0.5	0.4
Not applicable at institution	0.1	S	0.2	0.4	0.3
Not applicable for position	0.3	0.9	0.5	0.5	0.5
Male (number)	1,927.4	750.5	982.4	1,071.2	1,119.0
			Percent		
Professor	0.6	S	0.7	1.1	0.9
Associate professor	0.4	S	1.1	1.0	0.7
Assistant professor	0.4	1.2	1.0	0.4	S
Instructor, lecturer, adjunct faculty	0.3	0.8	0.5	0.5	0.4
Not applicable at institution	0.2	S	S	0.4	S
Not applicable for position	0.3	1.2	0.7	0.6	0.5
Female (number)	935.5	387.0	641.0	472.6	260.8
			Percent		
Professor	0.6	S	0.7	1.9	2.4
Associate professor	0.6	S	1.2	1.8	S
Assistant professor	0.6	1.3	1.2	S	S
Instructor, lecturer, adjunct faculty	0.5	0.9	1.0	1.1	S
Not applicable at institution	0.3	S	S	S	S
Not applicable for position	0.6	1.3	1.0	1.2	S

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: Academe includes 2-year and 4-year colleges, universities, medical schools, and university-affiliated research institutes. Those on postdoctoral appointments are also included in this table, mostly under "not applicable for position". Standard errors are rounded to nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients.

Table 22a. Standard errors on academically employed doctoral scientists and engineers, by field of doctorate and tenure status: 1997

April 2002

Tenure status	Field of doctorate								
	All fields	Computer and information sciences	Mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total employed in academe (number)	2,226.4	260.5	451.7	1,207.8	254.2	768.6	1,109.3	749.5	951.9
					Percent				
Tenured	0.4	4.5	1.6	0.6	1.7	1.1	1.2	1.5	1.6
On tenure track	0.3	4.5	1.1	0.6	1.5	0.8	0.9	1.0	0.9
Not on tenure track	0.3	S	S	0.6	1.1	0.8	0.7	1.0	1.0
No tenure system at institution	0.2	S	S	0.4	S	0.5	0.6	0.8	S
No tenure for position	0.3	S	0.9	0.7	1.2	0.8	0.7	1.2	1.2

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: Academe includes 2-year and 4-year colleges, universities, medical schools, and university-affiliated research institutes. Those on postdoctoral appointments are also included in this table, mostly under "not applicable for position". Standard errors are rounded to nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients.

Table 23a. Standard errors on academically employed doctoral scientists and engineers, by years since doctorate, sex, and tenure status: 1997

April 2002

Sex and tenure of status	Total	Years since doctorate: 5 years or less	6-15 years	16-25 years	More than 25 years
Total employed in academe (number)	2,226.4	863.7	1,247.8	1,173.7	1,126.7
			Percent		
Tenured	0.4	0.3	0.8	0.8	0.8
On tenure track	0.3	0.9	0.7	0.4	S
Not on tenure track	0.3	0.8	0.5	0.5	0.5
No tenure system at institution	0.2	0.4	0.3	0.6	0.4
No tenure for position	0.3	0.8	0.6	0.6	0.7
Male (number)	1,927.4	750.5	982.4	1,071.2	1,119.0
			Percent		
Tenured	0.5	S	1.1	0.9	0.8
On tenure track	0.4	1.1	0.8	0.4	S
Not on tenure track	0.3	1.1	0.6	0.5	0.5
No tenure system at institution	0.2	0.6	0.4	0.6	0.4
No tenure for position	0.3	1.1	0.8	0.7	0.7
Female (number)	935.5	387.0	641.0	472.6	260.8
			Percent		
Tenured	0.7	S	1.2	1.6	2.5
On tenure track	0.6	1.2	1.2	S	S
Not on tenure track	0.6	1.1	1.1	1.3	S
No tenure system at institution	0.4	S	0.7	S	S
No tenure for position	0.7	1.2	1.1	1.2	S

KEY: S = Suppressed due to too few cases (fewer than 1,000 weighted cases).

NOTES: Academe includes 2-year and 4-year colleges, universities, medical schools, and university-affiliated research institutes.

Those on postdoctoral appointments are included in this table. Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients.

Table 24a. Standard errors on characteristics of doctoral scientists and engineers on postdoc, by selected field of doctorate: 1997

April 2002

Demographic characteristic	Field of doctorate		
	All fields	Biological and agricultural sciences	Other fields
Total postdocs (number)	539.7	409.2	449.0
		Percent	
Years since doctorate			
5 years or less	1.1	1.3	2.2
6-10 years	1.0	1.2	1.8
11-15 years	S	S	S
More than 15 years	S	S	S
Sex			
Male	1.1	1.5	1.8
Female	1.1	1.5	1.8
Race/ethnicity[1]			
White	1.1	1.6	1.8
Black	S	S	S
Asian/Pacific Islander	1.2	1.5	1.7
Hispanic	S	S	S
American Indian/Alaskan Native	S	S	S
Age			
34 or younger	1.5	1.8	2.4
35-44	1.3	1.7	2.0
45 or older	1.0	S	2.0
Citizenship status			
U.S. citizen	1.1	1.3	1.7
Non-U.S. citizen	1.1	1.3	1.7
Employment sector			
Educational institution	1.2	1.5	1.8
Business/industry	0.9	1.1	1.4
Other	0.9	1.2	1.3
Employment benefits			
Health benefits available	0.8	0.9	1.3
Pension benefits available	1.3	1.5	2.2

[1] Race/ethnicity shown for all doctorate recipients, including temporary residents.

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: Postdoc is a temporary position awarded in academe, industry or government primarily for gaining additional education and training in research. Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 25a. Standard errors on primary reason for holding postdoc for doctoral scientists and engineers, by selected field of doctorate: 1997

April 2002

Reason	Field of doctorate		
	All fields	Biological and agricultural sciences	Other fields
Total postdocs (number)	539.7	409.2	449.0
	Percent		
Primary reason for holding postdoc			
Additional training in field	1.2	1.5	1.8
Training out of field	0.9	1.2	1.6
Work with specific person or place	1.0	1.2	1.9
No other employment available	1.0	1.1	1.7
Postdoc generally expected for career in this field	1.1	1.5	1.6
Other reason	0.8	S	1.4

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: Postdoc is a temporary position awarded in academe, industry or government primarily for gaining additional education and training in research. Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 26a. Standard errors on second job status of doctoral scientists and engineers, by employment sector of principal job: 1997

October 2002

Second job status and occupation	Employment sector of principal job								
	All sectors	Universities and 4-year colleges	Other educational institutions	Private for-profit	Self-employed	Private not-for-profit	Federal Government	State and local government	Other employer
Total employed (number)	2,748.1	2,235.2	578.8	2,194.9	878.6	847.4	1,047.5	651.4	194.7
	Percent								
Held second job	0.3	0.4	2.0	0.3	1.2	1.4	0.7	2.0	S
No second job	0.3	0.4	2.0	0.3	1.2	1.4	0.7	2.0	2.6
Total holding second job (number)	1,393.4	897.2	332.7	545.8	315.7	396.5	303.6	364.4	S
Occupation of second job									
	Percent								
Science and engineering occupations	0.8	1.3	3.5	2.0	4.1	2.9	3.2	3.9	S
Computer and information scientists	0.4	0.5	S	1.1	S	S	S	S	S
Mathematical scientists	0.3	0.4	S	S	S	S	S	S	S
Life and related scientists	0.4	0.6	S	S	S	S	S	S	S
Physical and related scientists	0.5	0.7	S	1.0	S	S	S	S	S
Social and related scientists	0.7	1.0	S	1.3	S	S	S	S	S
Psychologists	0.8	0.9	3.3	1.7	S	3.1	S	4.6	S
Engineers	0.5	0.9	S	1.6	S	S	S	S	S
Non-science and engineering occupations	0.8	1.3	3.5	2.0	4.1	2.9	3.2	S	S
Top/mid-level managers, administrators, etc.	0.5	0.7	S	S	S	S	S	S	S
Other non-S&E occupations	0.8	1.2	3.2	1.8	4.0	2.8	3.1	S	S

KEY: S = Suppressed due to too few cases (fewer than 1,000 weighted cases).

NOTES: Standard errors are rounded to nearest tenth. Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 27a. Standard errors on relationship between work on second job and doctoral degree by doctoral scientists and engineers, by field of doctorate: 1997

April 2002

Relationship	Field of doctorate							
	All fields	Computer and mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total holding second job (number).....	1,403.6	291.6	598.6	204.9	494.3	568.9	860.8	459.5
				Percent				
Closely related.....	0.9	4.2	1.8	3.0	2.5	2.5	1.4	2.7
Somewhat related.....	0.8	3.1	1.7	S	2.3	2.4	1.3	2.2
Not related.....	0.5	3.1	1.6	S	2.5	1.4	0.8	1.6

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institutions and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients.

Table 28a. Standard errors on employment changes in doctoral scientists and engineers since 1995, by field of doctorate: 1997

April 2002

Employment change	All fields	Computer and mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
	Field of doctorate							
Total employed in 1997 (number).....	2,748.1	580.4	1,216.8	286.6	1,131.9	1,247.4	1,017.6	1,305.4
	Percent							
Not employed in 1995.....	0.1	0.5	0.3	S	0.4	0.4	0.3	0.3
No change since 1995.....	0.2	1.1	1.5	1.1	0.7	0.8	0.7	0.7
Change in employer and job.....	0.2	0.8	0.4	0.8	0.5	0.5	0.4	0.5
Change in employer only.....	0.1	0.6	0.3	S	0.3	0.5	0.4	0.3
Change in job only.....	0.2	0.6	0.3	0.6	0.5	0.5	0.4	0.5

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institutions and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients.

Table 29a. Standard errors on reasons for changing employer and/or job since 1995 for doctoral scientists and engineers, by field of doctorate: 1997

April 2002

Reasons	Field of doctorate							
	All fields	Computer and mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total changing employer and/or job (number)	1,599.3	365.5	684.3	180.7	726.2	555.9	592.4	687.5
	Percent							
Pay or promotion opportunities	0.8	2.9	1.4	2.7	1.8	2.5	1.8	1.8
Working conditions	0.6	2.3	1.2	2.5	1.4	2.3	2.0	1.4
Job location	0.6	2.1	1.2	S	1.3	2.0	1.8	1.2
Change in career	0.7	3.1	1.4	2.6	1.5	2.4	1.8	1.6
Family-related reasons	0.5	S	1.0	S	0.9	1.4	1.5	1.0
School-related reasons	0.4	S	0.7	S	0.7	1.3	0.9	0.9
Laid off/job terminated	0.6	2.6	1.0	S	1.3	1.6	1.7	1.1
Retired	0.3	S	S	S	0.8	S	S	0.9
Other reason	0.6	S	1.0	S	1.2	1.8	1.3	1.4

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institutions and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients.

Table 30a. Standard errors on overall job satisfaction level of doctoral scientists and engineers, by field of doctorate, sex, and race/ethnicity: 1997

April 2002

Level of overall job satisfaction, sex and race/ethnicity	Field of doctorate								
	All fields	Computer and information sciences	Mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total employed (number)	2,748.1	318.4	534.5	1,216.8	286.6	1,131.9	1,247.4	1,017.6	1,305.4
					Percent				
Very satisfied	0.4	2.9	1.6	0.7	1.3	0.8	1.0	0.9	0.9
Somewhat satisfied	0.3	2.8	1.5	0.7	1.4	0.7	1.0	0.8	0.8
Very/somewhat dissatisfied	0.2	S	0.7	0.4	0.7	0.5	0.5	0.6	0.4
Sex									
Male (number)	2,534.2	309.8	523.8	1,087.6	225.1	1,123.5	1,134.0	897.4	1,284.0
					Percent				
Very satisfied	0.4	3.4	1.7	0.8	1.8	0.9	1.3	1.2	0.9
Somewhat satisfied	0.4	3.3	1.7	0.7	1.9	0.8	1.2	1.1	0.9
Very/somewhat dissatisfied	0.2	S	0.7	0.4	S	0.5	0.7	0.7	0.4
Female (number)	1,078.0	82.2	159.0	478.9	211.4	303.5	399.2	697.2	198.4
					Percent				
Very satisfied	0.6	S	3.5	1.1	1.7	1.9	1.6	1.2	2.7
Somewhat satisfied	0.6	S	3.2	1.1	1.8	1.9	1.5	1.2	2.8
Very/somewhat dissatisfied	0.4	S	S	0.6	0.9	1.2	0.9	0.8	S
Race/ethnicity[1]									
White (number)	2,434.2	276.4	504.2	108.0	260.5	934.6	1,157.9	979.9	1,096.1
					Percent				
Very satisfied	0.4	3.4	1.7	0.7	1.4	0.9	1.0	1.0	1.1
Somewhat satisfied	0.3	3.3	1.7	0.7	1.5	0.9	1.0	0.8	1.1
Very/somewhat dissatisfied	0.2	S	1.0	0.4	0.7	0.5	0.7	0.6	0.7
Asian/Pacific Islander (number)	1,056.3	196.1	285.5	480.5	106.4	493.1	318.9	136.9	681.1
					Percent				
Very satisfied	0.9	5.1	3.9	1.6	S	2.1	3.3	S	1.8
Somewhat satisfied	1.0	S	4.1	1.6	S	2.2	3.2	S	1.8
Very/somewhat dissatisfied	0.5	S	S	1.1	S	1.4	S	S	0.8
Other (number)	591.3	87.0	110.4	217.6	80.5	300.4	336.6	270.1	230.1
					Percent				
Very satisfied	1.4	S	S	2.6	S	3.5	3.2	2.8	4.1
Somewhat satisfied	1.3	S	S	2.9	S	3.0	2.9	2.6	3.8
Very/somewhat dissatisfied	1.0	S	S	S	S	S	S	S	S

[1] Race/ethnicity shown for all doctorate recipients, including temporary residents.

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institutions and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients.

Table 31a. Standard errors on job security concerns among doctoral scientists and engineers, by field of doctorate: 1997

April 2002

Level of concern	Field of doctorate							
	All fields	Computer and mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total employed (number)	2,748.1	580.4	1,216.8	286.6	1,131.9	1,247.4	1,017.6	1,305.4
				Percent				
Concern about their own job loss								
Very concerned	0.1	0.5	0.3	S	0.4	0.4	0.4	0.4
Somewhat concerned	0.2	0.9	0.4	0.9	0.5	0.6	0.6	0.6
Not very concerned	0.3	1.1	0.4	1.1	0.6	0.8	0.7	0.7
Concern about other family members' job loss								
Very concerned	0.1	S	0.2	S	0.2	0.3	0.3	0.2
Somewhat concerned	0.2	0.8	0.3	0.7	0.4	0.5	0.5	0.5
Not very concerned	0.3	1.5	0.7	1.3	0.8	1.0	0.9	0.9
No other working adult in household	0.3	1.4	0.7	1.3	0.8	1.0	0.9	0.9

KEY: S = Suppressed due to too few cases in the estimates (fewer than 1,000 weighted cases).

NOTES: Data are based on a question that asked how concerned they are that a job loss will occur in the next 12 months. Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 32a. Standard errors on reasons for losing job among doctoral scientists and engineers who had lost or left a job in the past, by field of doctorate: 1997

April 2002

Reason for job loss	Field of doctorate							
	All fields	Computer and mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total that lost or left a job (number)	1,127.4	274.5	525.7	147.5	588.6	502.2	544.1	584.2
				Percent				
Self-operated business ended	0.6	S	S	S	S	1.6	1.6	S
Company, facility or agency closed down	0.9	3.7	1.8	S	1.7	2.4	2.4	2.1
Company facility or agency moved	0.5	S	1.0	S	1.3	S	S	1.3
Work, services, company, or facility was reorganized	0.9	4.5	1.8	3.5	2.1	2.8	2.4	2.6
Work, services, company or facility was taken over	0.7	S	1.2	S	1.8	S	1.4	2.1
Work, services, company, or facility had insufficient business	1.0	4.1	1.7	S	2.1	2.9	2.4	2.4
Other reason	0.7	S	1.3	S	1.7	2.2	2.0	1.7

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients.

Table 33a. Standard errors on length of time taken to find a new job and comparison of new to previous job among doctoral scientists and engineers who had lost or left their job in the past, by field of doctorate: 1997

April 2002

Length of time to find new job and comparison of new to previous job	Field of doctorate							
	All fields	Computer and mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total that had lost or left a job in the past and later took a new job (number)	1,144.0	248.9	513.7	147.5	596.7	499.4	532.5	580.1
	Percent							
Time it took to find new job								
Less than 1 month	0.9	4.3	1.7	S	1.9	2.9	2.1	2.0
1-3 months	0.9	4.4	1.7	S	1.6	2.5	2.3	2.0
4-6 months	0.8	S	1.5	S	1.7	2.1	1.5	1.9
7-12 months	0.6	S	1.2	S	1.5	2.4	1.3	1.6
More than 1 year	0.5	S	0.9	S	1.0	S	S	1.2
Comparison of new to previous job in terms of								
Salary:								
Significantly more	0.8	4.2	1.6	S	1.6	3.0	2.0	2.2
About the same	0.8	4.0	1.6	S	1.9	3.1	2.2	2.3
Significantly less	0.6	S	1.4	S	1.7	2.7	1.7	1.8
Level of responsibility:								
Significantly more	1.0	S	1.5	S	2.1	2.4	2.4	2.3
About the same	1.0	4.5	1.5	S	2.0	2.9	2.3	2.5
Significantly less	0.6	S	1.4	S	1.4	1.9	1.6	1.8
Utilizing knowledge or skills:								
Significantly more	0.9	S	1.6	S	1.9	2.8	2.1	2.2
About the same	1.1	4.5	1.7	S	2.1	3.1	2.3	2.4
Significantly less	0.6	S	1.2	S	1.3	2.2	1.5	1.7

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients.

Table 34a. Standard errors on likelihood of doctoral scientists and engineers in choosing the same field of study if given a chance, by field of doctorate and sex: 1997

April 2002

Likelihood of choosing the same field of study	Field of doctorate								
	All fields	Computer and information sciences	Mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total employed (number)	2,748.1	318.4	534.5	1,216.8	286.6	1,131.9	1,247.4	1,017.6	1,305.4
					Percent				
Very likely	0.4	2.3	1.5	0.6	1.2	0.8	1.1	0.9	0.9
Somewhat likely	0.3	2.0	1.4	0.6	1.2	0.7	1.1	0.9	0.9
Not at all likely	0.2	S	1.1	0.4	0.8	0.7	0.7	0.5	0.7
Male (number)	2,534.2	309.8	523.8	1,087.6	225.1	1,123.5	1,134.0	897.4	1,284.0
					Percent				
Very likely	0.4	2.7	1.6	0.8	1.8	0.8	1.4	1.4	0.9
Somewhat likely	0.4	2.3	1.4	0.7	1.8	0.7	1.2	1.4	0.9
Not at all likely	0.3	S	1.2	0.5	1.4	0.7	1.0	0.9	0.7
Female (number)	1,078.0	82.2	159.0	478.9	211.4	303.5	399.2	697.2	198.4
					Percent				
Very likely	0.7	3.6	3.8	1.1	1.9	2.1	1.6	1.2	2.5
Somewhat likely	0.7	S	3.9	1.0	1.6	2.1	1.3	1.2	2.5
Not at all likely	0.4	S	S	0.9	1.0	1.9	1.1	0.7	S

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients.

Table 35a. Standard errors on professional society or association membership of doctoral scientists and engineers, by field of doctorate: 1997

April 2002

Number of memberships	Field of doctorate								
	All fields	Computer and information sciences	Mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total (number)	2,712.3	321.7	518.9	1,164.2	308.7	1,209.9	1,153.7	1,048.6	1,193.3
	Percent								
None	0.3	2.5	1.3	1.5	0.7	0.6	0.8	0.6	0.7
One	S	S	S	S	S	S	S	S	S
Two	0.3	2.5	1.2	0.4	1.1	0.6	0.9	0.7	0.7
Three	0.2	1.9	0.9	0.4	1.1	0.5	0.8	0.7	0.7
Four or more	0.3	S	S	0.5	1.2	0.5	0.9	0.9	0.6

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients.

Table 36a. Standard errors on work-related training activities of doctoral scientists and engineers, by field of doctorate: 1997

April 2002

Training areas and reasons for taking training	Field of doctorate							
	All fields	Computer and mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total (number)	2,712.3	570.9	1,164.2	308.7	1,209.9	1,153.7	1,048.6	1,193.3
				Percent				
Taken work-related training	0.4	1.3	0.6	1.2	0.8	0.9	0.7	0.8
No work-related training	0.3	1.3	0.6	1.2	0.8	0.9	0.7	0.8
Total taking training (number)	2,498.1	477.9	972.4	299.0	1,152.0	952.7	959.9	967.8
				Percent				
Type of training:								
Management/supervisor training	0.4	1.8	0.9	1.6	0.9	1.2	0.8	1.3
Training in occupational field	0.3	1.7	0.8	1.4	1.0	1.3	0.6	1.0
General professional training	0.4	1.2	0.8	1.1	0.9	1.1	0.7	1.1
Other work-related training	0.4	1.7	0.8	1.3	1.1	1.4	0.8	1.0
Most important reasons for taking training:								
To change occupational field	0.1	S	0.3	S	0.3	S	S	0.4
Further skills in occupational field	0.4	1.7	0.8	1.5	0.9	1.4	0.9	1.1
Licensure/certification	0.2	S	0.3	1.0	0.3	0.5	0.8	S
Increase opportunities	0.2	S	0.3	S	0.5	0.6	0.3	0.5
Learn skills for new position	0.2	1.1	0.5	S	0.6	0.9	0.4	0.6
Required or expected by employer	0.2	1.1	0.4	S	0.7	0.9	0.4	0.7
Other reasons	0.2	S	0.4	S	0.5	0.8	0.4	0.6

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients.

Table 37a. Standard errors on the type of employment wanted by recent doctoral recipients when they began doctoral program, by field of doctorate: 1997

April 2002

Type of employment wanted	Field of doctorate								
	All fields	Computer and information sciences	Mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total recent doctoral recipients (number)	1,075.8	233.4	256.6	543.3	149.1	493.9	441.5	422.1	502.2
					Percent				
Type of work wanted:									
Teaching	0.6	3.3	2.6	1.3	2.0	1.7	1.3	1.9	1.4
Research	0.4	2.3	2.1	0.7	1.4	0.8	1.6	1.6	0.9
Management/administration	0.5	S	S	0.9	2.0	1.2	1.5	1.1	1.3
Professional	0.5	3.1	S	1.0	2.2	1.2	1.7	1.6	1.1
Other	0.3	S	S	0.5	0.9	0.7	1.4	0.8	0.9
Employment setting most wanted:									
College or university	0.6	3.4	2.7	1.3	1.7	1.7	1.7	1.8	1.3
Business or industry	0.5	3.4	S	1.1	S	1.6	S	1.0	1.3
Other	0.2	S	S	0.8	1.5	0.8	1.5	1.7	0.7

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: 'Recent doctoral recipients' are those who reported having received their doctorate between June of 1990 and 1996. 'Type of employment wanted' is based on two sets of questions asking respondents to think back to when they began their doctoral program, what they wanted to do and where they most wanted to work. Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned science and engineering research doctorate from U.S. institutions and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 38a. Standard errors on perception of job market at the time of doctoral degree completion, and benefit of doctoral degree by recent doctoral recipients by field of doctorate: 1997

April 2002

Perception and benefit	Field of doctorate							
	All fields	Computer and mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total recent doctoral recipients (number)	1,075.8	330.0	543.3	149.1	493.9	441.5	422.1	502.2
					Percent			
Job market for postdocs:								
Excellent	0.4	S	0.9	S	0.7	0.9	0.9	0.7
Good	0.6	1.8	1.2	1.9	1.6	1.3	2.0	1.2
Fair	0.7	1.9	1.1	2.0	1.6	2.1	2.0	1.3
Very poor	0.6	2.3	1.1	S	1.6	2.1	1.4	1.5
Don't know or not applicable	0.4	S	S	S	S	1.4	1.0	0.9
Job market for positions other than postdocs:								
Excellent	0.3	1.5	S	S	S	S	S	0.7
Good	0.5	2.1	1.0	2.2	1.1	1.4	1.7	1.3
Fair	0.7	2.4	1.4	2.0	1.6	2.2	2.1	1.5
Very poor	0.6	2.4	1.3	S	1.7	2.0	1.2	1.4
Don't know or not applicable	0.2	S	0.5	S	S	S	1.0	S
Doctoral degree helped:								
Begin first career	0.7	2.7	1.3	1.9	1.6	2.1	1.7	1.4
Further a career already started	0.5	2.3	1.2	2.1	1.4	1.6	1.6	1.1
Change careers	0.4	S	0.5	S	S	1.6	1.4	0.7
In ways not related to career	0.2	S	S	S	S	S	S	0.6

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: 'Recent doctoral recipients' are those who reported having received their doctorate between June of 1990 and 1996. Job market perception is based on a question that asked how they thought the job market was at the time of doctoral degree completion. Benefit of doctoral degree is based on a question that asked how they thought a doctoral degree would help their career. Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned research doctorate from U.S. institutions and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 39a. Standard errors on career path job status of recent doctoral recipients, by field of doctorate: 1997

April 2002

Career path job status	Field of doctorate								
	All fields	Computer and information sciences	Mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total recent doctoral recipients (number).....	1,075.8	233.4	256.6	543.3	149.1	493.9	441.5	422.1	502.2
					Percent				
Holding a job.....	0.6	2.6	2.7	1.0	1.9	1.3	1.4	1.3	1.0
Accepted but not begun job.....	0.2	S	S	0.5	S	S	S	S	S
Not holding, but seeking job.....	0.5	S	S	0.8	S	1.1	S	1.1	1.0
Not holding, not seeking job.....	0.4	S	S	0.7	S	1.0	1.1	0.8	0.7

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: 'Recent doctoral recipients' are those who reported having received their doctorate between June of 1990 and 1996. Data is based on questions that asked about the career job status since doctoral degree completion. Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned science and engineering research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 40a. Standard errors on aspects of a career path job that were greatly or somewhat affected by completion of doctoral degree for recent doctoral recipients, by field of doctorate: 1997

April 2002

Aspect of career path job	Field of doctorate							
	All fields	Computer and mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total recent doctoral recipients holding a career path job before completion of doctoral degree (number)	577.0	166.5	209.4	110.0	195.4	328.1	297.4	230.0
				Percent				
Aspects of career path job that were greatly or somewhat affected by doctoral degree:								
Salary level	1.4	5.3	3.0	3.5	4.8	4.0	2.8	3.3
Level of responsibility	1.4	5.3	3.6	3.2	5.0	3.7	3.1	3.0
Job security	1.4	5.3	3.8	3.0	4.2	3.6	3.0	3.1
Degree of interesting or rewarding work	1.5	5.1	3.8	3.5	4.5	4.0	3.8	2.6
Degree of technically demanding work	1.4	S	3.4	S	4.8	4.0	3.3	2.5
Management activities	1.6	S	3.9	S	S	3.2	3.3	3.0
Other	0.9	S	S	S	S	S	S	S

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: 'Recent doctoral recipients' are those who reported having received their doctorate between June of 1990 and 1996. Standard errors are rounded to the nearest tenth.

Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 41a. Standard errors on most important resource used and length of time taken to find first career path job for recent doctoral recipients, by field of doctorate, 1997

April 2002

Resource and length of time	Field of doctorate							
	All fields	Computer and mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total recent doctoral recipients holding a career path job (number)	1,103.1	311.6	467.1	150.0	447.7	378.8	420.8	444.0
					Percent			
Most important job search resource:								
Faculty or advisor	0.7	2.7	1.4	S	1.4	2.8	1.7	1.6
Informal channels through colleagues or friends	0.8	3.2	1.2	S	1.8	2.4	2.2	1.8
Professional meetings and/or journals	0.7	3.3	1.4	S	1.7	2.4	2.2	1.4
Other resource [1]	0.7	2.6	1.4	S	1.9	2.7	2.0	1.7
Length of time between completion of first doctoral degree and first career path job:								
Less than 1 month [2]	0.8	3.3	1.4	2.9	2.1	2.7	2.4	2.0
1-6 months	0.8	3.6	1.4	S	1.8	2.9	2.4	1.5
7-12 months	0.5	S	0.8	S	1.2	S	S	1.0
More than 12 months	0.7	S	1.0	S	1.7	S	1.9	1.2

[1] 'Other resource' includes professional recruiter, college/department placement office, electronic postings, newspapers, direct contact with company, and other.

[2] Includes those who already held a career path job before completion of doctoral degree.

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: 'Recent doctoral recipients' are those who reported having received their doctorate between June of 1990 and 1996. Standard errors are rounded to the nearest tenth.

Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 42a. Standard errors on factors that somewhat or greatly limited career path job search by recent doctoral recipients, by field of doctorate: 1997

April 2002

Factors limiting career path job search	Field of doctorate							
	All fields	Computer and mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total recent doctoral recipients seeking or holding a career path job (number)	1,118.2	329.9	526.8	159.7	512.0	418.1	414.3	488.8
				Percent				
Factors that somewhat or greatly limited career path job search:								
Family responsibilities	0.7	3.2	1.5	2.9	1.9	2.0	2.3	1.6
Spouse's career or employment	0.6	2.5	1.2	2.7	1.6	2.2	2.2	1.6
Debt from undergraduate or graduate degree(s)	0.6	S	0.8	S	1.3	1.7	2.0	1.1
Desire to not relocate	0.7	3.2	1.1	2.6	1.6	2.1	2.6	1.5
Suitable job not available	0.7	3.1	1.5	2.8	1.8	2.4	2.1	1.5
Other	0.4	S	0.8	S	1.3	S	1.6	0.9

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: 'Recent doctoral recipients' are those who reported having received their doctorate between June of 1990 and 1996. Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institution resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 43a. Standard errors on primary reason for working in a career path job outside doctoral degree field by recent doctoral recipients: 1997

April 2002

Primary reason	All fields
Total recent doctoral recients reporting career path job is not related to the doctoral field (number)	160.1
	Percent
Pay or promotion opportunities	4.3
Working conditions	1.4
Job location	4.3
Change in career or professional interests	4.5
Family-related reasons	1.3
Job in doctoral field not available	6.4
Other	2.2

NOTES: 'Recent doctoral recipients' are those who reported having received their doctorate between June of 1990 and 1996.

Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 44a. Standard errors on areas of training in which recent doctoral recipients thought their doctoral program had somewhat or very adequately prepared them for a career, by field of doctorate: 1997

April 2002

Areas of doctoral training	Field of doctorate								
	All fields	Computer and information sciences	Mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total recent doctoral recipients (number)	1,075.8	233.4	256.6	543.3	149.1	493.9	441.5	422.1	502.2
					Percent				
General problem solving skills	0.2	0.6	2.1	0.3	0.7	0.3	0.9	0.8	0.3
Subject matter knowledge	0.2	1.2	1.7	0.4	0.7	0.6	0.6	0.5	0.4
Oral communication skills	0.4	2.8	3.1	0.7	1.1	1.1	1.2	1.0	0.9
Teaching skills	0.6	4.0	2.9	1.2	1.7	1.6	1.8	1.5	1.3
Collaboration and teamwork skills	0.5	3.1	4.1	1.0	1.4	1.3	1.6	1.4	1.0
Quantitative skills	0.4	1.7	2.6	0.5	1.0	0.7	1.6	1.0	0.5
Writing skills	0.4	1.9	3.1	0.7	0.8	1.1	0.9	0.7	0.6
Computer skills	0.4	0.7	3.4	0.9	1.3	0.9	1.6	1.8	0.6
Research integrity/ethics	0.4	2.2	3.0	0.8	0.9	1.1	1.0	0.6	0.6
Establishing contacts with colleagues in field	0.5	2.1	2.7	0.9	1.4	1.4	1.4	1.5	1.0
Management or administrative skills	0.6	3.8	2.8	1.2	2.1	1.4	1.8	1.4	1.4

NOTES: 'Recent doctoral recipients' are those who reported having received their doctorate between June of 1990 and 1996. Standard errors are rounded to the nearest tenth.

Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 45a. Standard errors on first area of the doctoral program in which recent doctoral recipients would have liked more training by field of doctorate: 1997

April 2002

Doctoral program area	Field of doctorate							
	All fields	Computer and mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total recent doctoral recipients (number)	1,075.8	33.0	543.3	149.1	493.9	441.5	422.1	502.2
				Percent				
Additional training desired (number)	981.1	300.1	458.3	165.5	480.5	375.1	417.4	428.5
General problem solving skills	0.2	S	0.5	S	S	S	S	S
Subject matter knowledge	0.4	S	0.6	S	0.9	1.4	1.2	0.8
Oral communication skills	0.5	S	0.8	S	1.3	S	S	1.1
Teaching skills	0.5	S	1.1	S	1.1	1.6	1.4	1.0
Collaboration and teamwork skills	0.4	S	0.9	S	0.9	S	S	1.1
Quantitative skills	0.3	S	0.6	S	S	1.7	S	S
Writing skills	0.4	S	0.8	S	1.2	S	S	0.9
Computer skills	0.5	S	0.8	S	1.0	1.7	1.2	0.9
Research integrity/ethics	0.1	S	S	S	S	S	S	S
Establishing contacts with colleagues in field	0.5	2.2	0.8	S	1.3	1.9	1.6	1.0
Management or administrative skills	0.6	S	1.1	S	1.6	S	2.0	1.4

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: 'Recent doctoral recipients' are those who reported having received their doctorate between June of 1990 and 1996.

Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 46a. Standard errors on level of overall satisfaction with doctoral program by recent doctoral recipients, by field of doctorate: 1997

April 2002

Level of overall satisfaction with doctoral program	Field of doctorate								
	All fields	Computer and information sciences	Mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total recent doctoral recipients (number)...	1,075.8	233.4	256.6	543.3	149.1	493.9	441.5	422.1	502.2
					Percent				
Very satisfied...	0.7	4.3	3.6	1.2	1.9	1.8	2.2	1.7	1.5
Somewhat satisfied...	0.6	4.1	3.4	1.0	1.9	1.7	1.8	1.7	1.4
Very or somewhat dissatisfied...	0.3	S	S	0.7	S	0.9	1.2	0.9	0.5

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: 'Recent doctoral recipients' are those who reported having received their doctorate between June of 1990 and 1996. Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 47a. Standard errors on retired doctoral scientists and engineers, by field of doctorate and age: 1997

October 2002

Age	Field of doctorate							
	All fields	Computer and mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total retired (number)	863	188	452	98	556	471	267	451
	Percent							
Age group								
Under 65	1	S	2	S	2	3	3	4
65-75	1	6	2	S	2	3	3	4

KEY: S = Suppressed due to too few cases (fewer than 1,000 weighted cases).

NOTES: Standard errors are rounded to nearest tenth. Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 48a. Standard errors on principal occupation of doctoral scientists and engineers, by employment sector: 1997

October 2002

Principal occupation	Employment sector								
	Total	University and 4-year college	Other educational institution	Private for-profit company	Self-employed	Private not-for-profit organization	Federal government	State/local government	Other employer
Total employed (number)	2,748.1	2,235.2	578.8	2,194.9	878.6	847.4	1,047.5	651.4	194.7
	Percent								
Science and engineering occupations	0.3	0.3	1.7	0.5	1.5	1.5	1.1	2.0	6.3
Computer and information scientists	0.1	0.2	S	0.4	S	S	0.5	S	S
Mathematical scientists	0.1	0.2	S	0.1	S	S	0.5	S	S
Life and related scientists	0.2	0.5	1.5	0.3	0.7	0.9	0.9	1.3	S
Physical and related scientists	0.2	0.3	1.5	0.5	0.7	0.7	0.9	1.3	S
Social and related scientists	0.2	0.5	1.5	0.1	S	0.7	0.7	S	S
Psychologists	0.2	0.1	1.8	0.3	1.8	1.1	0.6	1.9	S
Engineers	0.2	0.3	S	0.5	0.8	0.8	0.9	S	S
Non-science and engineering occupations	0.3	0.3	1.7	0.5	1.5	1.5	1.1	2.0	S
Top/mid-level managers, administrators, etc.	0.3	0.3	1.4	0.5	1.0	1.4	0.8	1.8	S
Other non-S&E occupations	0.2	0.3	1.7	0.4	1.3	1.1	0.6	1.3	S

KEY: S = Suppressed due to too few cases (fewer than 1,000 weighted cases).

NOTES: Standard errors are rounded to nearest tenth. Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 49a. Standard errors on principal occupation of doctoral scientistss and engineers, by years since doctorate: 1997

October 2002

Principal occupation	Years since doctorate				
	Total	5 years or less	6-15 years	16-25 years	More than 25 years
Total employed (number)	2,748.1	1,034.4	1,656.0	1,524.7	1,385.2
			Percent		
Science and engineering occupations	0.3	0.5	0.4	0.7	0.9
Computer and information scientists	0.1	0.4	0.2	0.3	0.3
Mathematical scientists	0.1	0.2	0.2	0.2	0.3
Life and related scientists	0.2	0.5	0.4	0.4	0.6
Physical and related scientists	0.2	0.4	0.3	0.4	0.5
Social and related scientists	0.2	0.4	0.4	0.5	0.5
Psychologists	0.2	0.4	0.4	0.4	0.3
Engineers	0.2	0.5	0.3	0.4	0.6
Non-science and engineering occupations	0.3	0.5	0.4	0.7	0.9
Top/mid-level managers, administrators, etc.	0.3	0.3	0.4	0.6	0.7
Other non-S&E occupations	0.2	0.4	0.4	0.5	0.5

KEY: S = Suppressed due to too few cases (fewer than 1,000 weighted cases).

NOTES: Standard errors are rounded to nearest tenth. Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients